

595.752
v856c
cop.3

Catalog of the *Cinara* Species of North America (Homoptera: Aphididae)



David J. Voegtlin
Charles A. Bridges

DEPOSITORY

OCT 18 1988

UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN

Illinois Natural History Survey
Special Publication 8
June 1988

NOTICE: Return or renew all Library Materials! The *Minimum Fee* for each Lost Book is \$50.00.

The person charging this material is responsible for its return to the library from which it was withdrawn on or before the **Latest Date** stamped below.

Theft, mutilation, and underlining of books are reasons for disciplinary action and may result in dismissal from the University.
To renew call Telephone Center, 333-8400

UNIVERSITY OF ILLINOIS LIBRARY AT URBANA-CHAMPAIGN

MAR 13 1998

L161—O-1096

Catalog of the *Cinara* Species of North America (Homoptera: Aphididae)

David J. Voegtlin
Faunistic Surveys and Insect Identification
Illinois Natural History Survey

Charles A. Bridges
Computer-based Education Research Laboratory
University of Illinois at Urbana-Champaign

Illinois Natural History Survey, Lorin I. Nevling, Chief
A Division of the Illinois Department of Energy and Natural Resources

Printed by authority of the State of Illinois

No charge is made for most publications of the Illinois Natural History Survey, and a list of those publications is available upon request. Single copies of most publications are available to anyone requesting them. Requests for multiple copies should be made in writing and should explain the use to be made of the publications. Address correspondence to the Office of the Chief at the address below.

Illinois Natural History Survey
Natural Resources Building
607 East Peabody Drive
Champaign, Illinois 61820

66539-2M-6-88
US ISSN 0888-9546

Pictured on the cover are *Cinara edulis* (Wilson) on the trunk of a small *Pinus edulis*. The photograph was taken at Colorado National Monument in May 1986 by David Voegtlin.

Cover Design: Connie Leverich
Graphic Assistance: Molly Scott
Composition: Patty Duzan and Eva Steger

Citation:

Voegtlin, D.J., and C.A. Bridges. 1988. Catalog of the *Cinara* species of North America (Homoptera: Aphididae). Illinois Natural History Survey Special Publication 8. 55 p.

595.752
V856c
cop. 3

Biological
U

Contents

Introduction 1

List of Species 5

Bibliography 35

List of Hosts 49

Family Cupressaceae 49

Family Pinaceae 50

Family Taxodiaceae 55

Digitized by the Internet Archive
in 2021 with funding from
University of Illinois Urbana-Champaign

<https://archive.org/details/catalogofcinaras08voeg>

Introduction

Entomologists engaged in taxonomic research require an in-depth knowledge of the literature on the group in question. The ever increasing volume of papers, coupled with the need to know the historical literature on which the taxonomy is based, presents a major hurdle. For many groups of insects this problem has been addressed, in part through the compilation of detailed catalogs. This is not the case for aphids, and there are no catalogs to the extensive taxonomic literature on this important group.

Because of the economic importance and cosmopolitan distribution of aphids, the literature on them is exceptionally diverse in language and publication. Within the last twenty years, bibliographies by Sharma (1969, 1971, 1972, 1977), Smith (1972), and Szelegiewicz (1969) have brought together the majority of publications on the taxonomy of aphids, and these in conjunction with the world list of Eastop and Hille Ris Lambers (1976) are highly useful to the aphidologist. What is lacking is a thorough annotation of these papers so that researchers can quickly identify those that contain information on the species they are studying. Further, the annotations should make clear which forms of the aphid are discussed in a given paper and what other information can be found there. With those needs in mind, we prepared this catalog on the literature of the *Cinara* of North America. The senior author is responsible for the collection and annotation of the literature. The junior author provided the computer expertise and programs used to prepare this catalog.

The information in this catalog is presented in three sections. The first lists the species along with extensive annotations; the second contains over 200 references related to those species; and the third records the hosts of *Cinara* for which documentation can be provided.

List of Species

Only species that have been recorded in the Nearctic are listed. The arrangement is alphabetical with subspecies (ssp.), synonyms (syn.), and homonyms (hom.) inserted below the presently accepted name. Each species name is followed by the name of the author, the date of the original description, and the genus in which it was described. Five categories of information follow.

Original Description, the first category, provides the name of the publication and the pagination for the original description. This information is followed by the citation number assigned to that publication in the bibliography of this catalog.

Type, the second category, gives the museum in which the type has been deposited, the form—if it was designated, the publication and pagination for this information, and the citation number assigned to that publication in the bibliography of this catalog.

References, the third category, lists the citation number for each reference in this catalog that contains information on a given species beyond distributional or host records. The abbreviations in parentheses following each citation number indicate the forms discussed

and other types of information provided in the publication. References limited to distribution or host records are, however, included in the bibliography and are indicated there by asterisks.

Distribution, the fourth category, lists states in the United States and Mexico and provinces in Canada where a given species has been collected. Postal code abbreviations are used for these geographic units. Distributions were determined by using all publications in the bibliography, those with asterisks and those without.

Hosts, the last category, includes all known hosts for a given species. Citation numbers are given for each host so that readers who question a host record can verify its source. Including more than two citations for each host seemed redundant. Hosts were compiled from all publications in the bibliography, those with asterisks and those without.

The following abbreviations are used in the List of Species:

fund.	fundatrix
ap. viv.	apterous viviparous female
al. viv.	alate viviparous female
ovip.	ovipara
ap. male	apterous male
al. male	alate male
b	biological note
cp	color plate
k	species given in a key
ld	line drawing (whole or part)
n	general note
n. syn.	synonymy created in this reference
p	photograph

The abbreviations used for museums and collections are given below:

BM(NH)	British Museum (Natural History), London
Boudreaux	Boudreaux Collection, Baton Rouge, Louisiana
CNC	Canadian National Collection, Ottawa
CSU	Colorado State University, Ft. Collins, Colorado
EML	Entomological Museum, Zoological Institute, Lund, Sweden
INHS	Illinois Natural History Survey, Champaign, Illinois
ISV	Instituto de Sanidad Vegetal, Buenos Aires, Brazil
MAES	Maine Agricultural Experiment Station, Orono, Maine
UCB	University of California, Berkeley, California
UMN	University of Minnesota, St. Paul, Minnesota
USNM	United States National Museum, Beltsville, Maryland

Bibliography

The bibliography primarily contains literature written by North American authors or by authors of papers dealing with Nearctic aphids. Since many of the species in the genus *Cinara* found in the Nearctic are not native, a number of references based predominately on Palearctic aphids are included. Citations are listed alphabetically and numbered in sequence. Those numbers are used in the species list to direct readers to the appropriate citations in the bibliography.

As noted earlier, many papers in the literature on aphids are made up almost entirely of lists of species found in particular geographic areas and do not contain enough information

to justify including them under the reference headings in the species list. They are, however, included in the bibliography and indicated by asterisks. Following each of these citations is a list of the species mentioned in the paper.

List of Hosts

This list provides the names of the host plants of *Cinara*. The species of *Cinara* that have been found on each are also given. Host names not found in the *Index Kewensis* are not included. Host authors were checked in L.H. Bailey's *Manual of Cultivated Plants* (1949) and in J.C. Willis's *A Dictionary of the Flowering Plants and Ferns* (1973).

Acknowledgments

We wish to thank Dr. G.A. Robinson, University of Manitoba, Winnipeg, and Dr. J.T. Sorensen, California Department of Agriculture, Sacramento, for reviewing the manuscript of this catalog. We are particularly indebted to Audrey Hodgins, editor at the Illinois Natural History Survey, for her meticulous examination of this catalog for inconsistencies. It is much improved by her efforts.

Literature Cited

- Bailey, L.H. 1949. *Manual of cultivated plants*, rev. ed. Macmillan Publishing Co., New York. 1116 p.
- Eastop, V.F., and D. Hille Ris Lambers. 1976. *Survey of the world's aphids*. Dr. W. Junk, The Hague. 573 p.
- Index Kewensis plantarum phanerogamarum 1893–present*. The Clarendon Press, Oxford. 2 vol. + 16 suppl.
- Sharma, M.L. 1969. *Bibliography of Aphidoidea*, Tome 1. Publications de l' Université de Sherbrooke, Québec, Canada. 293 p.
- Sharma, M.L. 1971. *Bibliography of Aphidoidea*, Tome 2. Publications de l' Université de Sherbrooke, Québec, Canada. 221 p.
- Sharma, M.L. 1972. *Bibliography of Aphidoidea*, Tome 3. Publications de l' Université de Sherbrooke, Québec, Canada. 207 p.
- Sharma, M.L. 1977. *Bibliography of Aphidoidea*, Tome 4. Publications de l' Université de Sherbrooke, Québec, Canada. 214 p.
- Smith, C.F. 1972. *Bibliography of the Aphididae of the world*. North Carolina Agricultural Experiment Station Technical Bulletin 216. 717 p.
- Szelegiewicz, H. 1969. *Mszyce: szkodniki roślin wektory chorób wirusowych i producenci spadzi; Bibliografia*. Państwowe Wydawnictwo Rolnicze Leśne, Warszawa. 250 p.
- Willis, J.C. 1973. *A dictionary of the flowering plants and ferns*, 8th ed. Cambridge University Press, Cambridge. 1245 p.

List of Species

abieticola (Cholodkovsky) 1899; see ***confinis*** (Koch) 1856

abietis (Fitch) 1851; *Lachnus*

ORIGINAL DESCRIPTION: Annu. Rep. N.Y. State Cab. Natur. Hist. 4:67 (49)

TYPE: USNM Rep. N.Y. State Mus. Natur. Hist. 46:411 (188)

REFERENCES: 35 (n); 36 (b); 49 (ap. viv.); 197 (ap. viv.)

DISTRIBUTION: United States: CA, IL, MN, NJ, NY, PA

HOSTS: *Abies concolor* (35, 36); *Picea mariana* (197)

acadiana Hottes 1956; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 69:63–64 (87)

TYPE: CNC (ap. viv. original designation) Proc. Biol. Soc. Wash. 69:64 (87)

REFERENCES: 87 (ap. viv.); 111 (k, ld)

DISTRIBUTION: Canada: NB

HOSTS: *Picea glauca* (87, 110)

alacra Hottes & Essig 1953; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 66:205–206 (119)

TYPE: UCB (ap. viv. original designation) Proc. Biol. Soc. Wash. 66:206 (119)

REFERENCES: 108 (k, ld); 119 (ap. viv., ld)

DISTRIBUTION: United States: CA, NV

HOSTS: *Abies concolor* (108, 119)

alaskana Hottes 1964; *Cinara*

ORIGINAL DESCRIPTION: Entomol. Ber. 24:50–51 (115)

TYPE: USNM (ap. viv. original designation) Entomol. Ber. 24:51 (115)

REFERENCES: 115 (ap. viv, ld)

DISTRIBUTION: United States: AK

HOSTS: *Picea* sp. (115)

alticola Hottes & Essig 1954; see ***osborni*** Knowlton 1942

americana Hottes & Essig 1953; see ***arizonica*** (Wilson) 1919

anzai Hottes & Essig 1953; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 66:169–170 (118)

TYPE: USNM (al. viv. original designation) Proc. Biol. Soc. Wash. 66:170 (118)

REFERENCES: 89 (ap. viv., ovip., al. male); 90 (ap. viv., al. viv., ovip., al. male, ld); 118 (al. viv.); 204 (ap. viv., al. viv., k)

DISTRIBUTION: United States: CA, OR

HOSTS: *Pinus albicaulis* (118, 157)

apacheca Hottes & Butler 1955; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 68:65–66 (117)

TYPE: USNM (al. viv. original designation) Proc. Biol. Soc. Wash. 68:66 (117)

REFERENCES: 107 (k, ld); 117 (ap. viv., al. viv.)

DISTRIBUTION: United States: AZ

HOSTS: *Pinus edulis* (117)

apini (Gillette & Palmer) 1924; *Lachnus*

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 17:31–35 (59)

TYPE: USNM The Thomas Say Foundation 5:23 (175)

REFERENCES: 59 (fund., ap. viv., al. viv., ovip., al. male, ld); 63 (ap. viv., al. viv., b, k, ld); 175 (fund., ap. viv., al. viv., ovip., al. male, b, k, ld)

DISTRIBUTION: United States: CO, ID, UT; Canada: PQ

HOSTS: *Pinus banksiana* (185); *Pinus flexilis* (59, 63)**arizonica** (Wilson) 1919; *Lachniella*

ORIGINAL DESCRIPTION: Can. Entomol. 51:22 (214)

TYPE: USNM Can. Entomol. 51:22 (214)

REFERENCES: 120 (n); 174 (ap. viv., al. viv., ld); 175 (ap. viv., al. viv., ovip., b, k, ld); 204 (ap. viv., al. viv., b, k, p); 214 (ap. viv., al. viv.)

DISTRIBUTION: United States: AZ, CA, CO, OR; Canada: BC

HOSTS: *Pinus coulteri* (160); *Pinus glabra* (208); *Pinus jeffreyi* (204); *Pinus occidentalis* (204); *Pinus ponderosa* (53, 175); *Pinus sabiniana* (204); *Pinus wallichiana* (208)syn. **americana** Hottes & Essig 1953; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 66:164–165 (118)

TYPE: UCB (ap. viv. original designation) Proc. Biol. Soc. Wash. 66:165 (118)

REFERENCES: 45 (n. syn.); 118 (ap. viv., al. viv.)

DISTRIBUTION: United States: OR

HOSTS: *Pinus ponderosa* (118)syn. **kinoi** Hottes & Essig 1953; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 66:161–162 (118)

TYPE: UCB (al. viv. original designation) Proc. Biol. Soc. Wash. 66:162 (118)

REFERENCES: 45 (n. syn.); 118 (al. viv., ap. viv.)

DISTRIBUTION: United States: CA

HOSTS: *Pinus ponderosa* (118)syn. **lassenensis** Hottes & Essig 1953; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 66:162–164 (118)

TYPE: UCB (al. viv. original designation) Proc. Biol. Soc. Wash. 66:163–164 (118)

REFERENCES: 45 (n. syn.); 118 (al. viv.)

DISTRIBUTION: United States: CA

HOSTS: *Pinus ponderosa* (118)syn. **sabinianus** (Swain) 1919; *Lachnus*

ORIGINAL DESCRIPTION: Univ. Calif. Pubs. Entomol. 3:49 (196)

TYPE: UCB Proc. Biol. Soc. Wash. 67:95 (120)

REFERENCES: 120 (n. syn.); 196 (ap. viv., al. viv.)

DISTRIBUTION: United States: CA

HOSTS: *Pinus sabiniana* (196)syn. **serrai** Hottes & Essig 1953; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 66:159–161 (118)

TYPE: UCB (al. viv. original designation) Proc. Biol. Soc. Wash. 66:161 (118)

REFERENCES: 45 (n. syn.); 118 (ap. viv., al. viv.)

DISTRIBUTION: United States: CA

HOSTS: *Pinus ponderosa* (118)

ater (Gillette & Palmer) 1924; see **atra** (Gillette & Palmer) 1924

atlantica (Wilson) 1919; *Lachniella*

ORIGINAL DESCRIPTION: Can. Entomol. 51:21–22 (214)

TYPE: CSU & USNM (cotypes) Fla. Agr. Exp. Sta. Mono. Ser. 3:15 (182)

REFERENCES: 174 (ap. viv., al. viv., ld); 177 (ap. viv., al. viv.); 179 (b);

182 (ap. viv., al. viv., ovip., al. male, b, ld, p); 214 (ap. viv., al. viv.)

DISTRIBUTION: United States: AL, AR, CT, DE, FL, GA, LA, MA, MS, NC, NY, OH, PA, SC, TN, TX, WV

HOSTS: *Pinus clausa* (182); *Pinus echinata* (182); *Pinus elliottii* (182); *Pinus glabra* (182);

Pinus pungens (182); *Pinus resinosa* (182); *Pinus rigida* (182); *Pinus serotina* (182);

Pinus strobus (182); *Pinus sylvestris* (182); *Pinus taeda* (179, 182); *Pinus virginiana* (182)

syn. **carolina** Tissot 1932; *Cinara*

ORIGINAL DESCRIPTION: Fla. Entomol. 16:3–4 (198)

TYPE: USNM (al. viv. original designation) Fla. Entomol. 16:3 (198)

REFERENCES: 10 (b, k); 15 (b); 48 (ap. viv., b); 69 (b); 182 (n. syn.);

198 (ap. viv., al. viv., b, ld); 199 (b, k, ld); 200 (n)

DISTRIBUTION: United States: DE, FL, LA, MA, MD, NC, NJ, NY, PA, SC, VA; Canada: ON

HOSTS: *Pinus clausa* (199); *Pinus echinata* (69); *Pinus glabra* (8); *Pinus palustris* (199);

Pinus resinosa (15, 180); *Pinus rigida* (156, 180); *Pinus taeda* (198, 200);

Pinus virginiana (69, 154)

atra (Gillette & Palmer) 1924; *Lachnus*

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 17:37–39 (59)

TYPE: USNM The Thomas Say Foundation 5:24 (175)

REFERENCES: 10 (misidentification of *canatra* Hottes & Bradley);

63 (ap. viv., al. viv., k, ld; first use of *atra*, an emendation of *ater*); 107 (k, ld);

175 (ap. viv., al. viv., ovip., ap. male, b, k, ld)

DISTRIBUTION: United States: CO, UT

HOSTS: *Pinus edulis* (59, 63); *Pinus monophylla* (142)

syn. **ater** (Gillette & Palmer) 1924; *Lachnus*

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 17:37–39 (59)

TYPE: USNM The Thomas Say Foundation 5:24 (175)

REFERENCES: 59 (ap. viv., al. viv., ovip., ap. male, cp)

DISTRIBUTION: United States: CO

HOSTS: *Pinus edulis* (59)

atripes Hottes 1958; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 71:7–8 (94)

TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 71:8 (94)

REFERENCES: 94 (ap. viv., ld); 111 (k, ld)

DISTRIBUTION: United States: ME

HOSTS: *Picea glauca* (94, 111)

australi (Ashmead) 1881; *Lachnus*

ORIGINAL DESCRIPTION: Can. Entomol. 13:67–68 (2)

TYPE: none Fla. Agr. Exp. Sta. Mono. Ser. 3:20 (182)

REFERENCES: 2 (b); 182 (declared *nomen dubium*); 199 (n)

DISTRIBUTION: United States: FL

HOSTS: *Pinus* sp. (2)

azteca Hottes & Essig 1954; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 67:155–156 (121)

TYPE: UCB (al. viv. original designation) Proc. Biol. Soc. Wash. 67:156 (121)

REFERENCES: 121 (ap. viv., al. viv., ld)

DISTRIBUTION: Mexico: MX [?]

HOSTS: *Pinus oocarpa* (121)**banksiana** Pepper & Tissot 1955; *Cinara*

ORIGINAL DESCRIPTION: Fla. Entomol. 38:85–88 (181)

TYPE: USNM (al. viv. original designation) Fla. Entomol. 38:87 (181)

REFERENCES: 15 (b); 17 (b, ld); 22 (b); 181 (ap. viv., al. viv., n);

182 (ap. viv., al. viv., ovip., al. male, b, k, ld, p)

DISTRIBUTION: United States: MI, PA, WI; Canada: AB, MB, NB, ON, SK

HOSTS: *Pinus banksiana* (15, 181)**bonica** Hottes 1956; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 69:228–229 (91)

TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 69:229 (91)

REFERENCES: 91 (ap. viv., ld); 111 (k, ld); 115 (n)

DISTRIBUTION: United States: AK

HOSTS: *Picea* sp. (91, 111)**bonita** Hottes 1956; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 69:227–228 (91)

TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 69:228 (91)

REFERENCES: 91 (ap. viv., ld); 111 (k, ld); 115 (n)

DISTRIBUTION: United States: AK

HOSTS: *Picea glauca* (91, 111)**braggii** (Gillette) 1917; *Lachnus*

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 10:138 (58)

TYPE: USNM The Thomas Say Foundation 5:25 (175)

REFERENCES: 15 (b); 17 (b); 58 (fund., ap. viv., al. viv., ovip., al. male); 111 (k, ld);

175 (fund., ap. viv., al. viv., ovip., al. male, b, k, ld); 203 (k)

DISTRIBUTION: United States: AK, CO, DE, NJ, OK; Canada: AB, BC, MB, NB, NF, NS, ON, PQ, SK

HOSTS: *Picea abies* (17, 53); *Picea engelmannii* (111); *Picea glauca* (15, 17);*Picea mariana* (15, 17); *Picea pungens* (53, 142); *Picea rubens* (17); *Picea sitchensis* (17, 53)**brevipilosa** Voegtlin, Remaudière, & Peña 1986; *Cinara*

ORIGINAL DESCRIPTION: Proc. Entomol. Soc. Wash. 88(2):233–236 (207)

TYPE: INHS (ap. viv. original designation) Proc. Entomol. Soc. Wash. 88(2):236 (207)

REFERENCES: 207 (ap. viv., ld, p)

DISTRIBUTION: Mexico: MICH

HOSTS: *Pinus* sp. (207)**brevispinosa** (Gillette & Palmer) 1924; *Lachnus*

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 17:27–30 (59)

TYPE: USNM The Thomas Say Foundation 5:26 (175)

REFERENCES: 17 (b, ld); 59 (fund., ap. viv., al. viv., ovip., al. male, ld);

63 (ap. viv., al. viv., b, k, ld); 97 (ld); 133 (n); 143 (n);

175 (fund., ap. viv., al. viv., ovip., al. male, b, k, ld); 204 (ap. viv., k)

DISTRIBUTION: United States: CA, CO, ID, OR, UT; Canada: AB, BC, NB
HOSTS: *Pinus banksiana* (31); *Pinus contorta* (59, 143); *Pinus contorta* var. *latifolia* (17, 53);
Pinus contorta var. *murrayana* (63, 175)

burrilli (Wilson) 1919; *Lachniella*

ORIGINAL DESCRIPTION: Can. Entomol. 51:42–43 (215)
TYPE: UMN (cotypes) Ann. Entomol. Soc. Amer. 75(1):75 (34)
REFERENCES: 73 (n, b); 133 (b); 175 (ap. viv., al. viv., b, k, ld); 215 (ap. viv., al. viv.)
DISTRIBUTION: United States: CO, ID, UT
HOSTS: *Juniperus osteosperma* (133, 142); *Juniperus scopulorum* (175, 215)

caliente Hottes 1955; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 68:197–203 (85)
TYPE: USNM (al. viv. original designation) Proc. Biol. Soc. Wash. 68:199 (85)
REFERENCES: 85 (ap. viv., al. viv., ovip., al. male, ld); 107 (k, ld)
DISTRIBUTION: United States: AZ, CA, CO
HOSTS: *Pinus edulis* (85, 107)

californica Hottes & Essig 1953; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 66:166–167 (118)
TYPE: UCB (al. viv. original designation) Proc. Biol. Soc. Wash. 66:167 (118)
REFERENCES: 118 (ap. viv., al. viv.); 204 (ap. viv., k)
DISTRIBUTION: United States: CA
HOSTS: *Pinus douglasiana* (208); *Pinus durangensis* (208); *Pinus glabra* (208);
Pinus lumholzii (208); *Pinus nigra* (208); *Pinus occidentalis* (208); *Pinus oocarpa* (208)
Pinus patula (208); *Pinus roxburghii* (208); *Pinus tabulaeformis* (118)

caliginosa Hottes 1961; see *coloradensis* (Gillette) 1917

canadensis Hottes & Bradley 1953; see *cupressi* (Buckton) 1881

canatra Hottes & Bradley 1953; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 66:85–86 (116)
TYPE: CNC (al. viv. original designation) Proc. Biol. Soc. Wash. 66:86 (116)
REFERENCES: 10 (b, k, as *atra* (Gillette & Palmer)); 15 (b); 17 (b, ld); 20 (b);
116 (al. viv., ap. viv., ovip.); 182 (ap. viv., al. viv., ovip., b, k, ld, p)
DISTRIBUTION: United States: DE, MI, PA; Canada: AB, BC, MB, NB, ON, SK
HOSTS: *Pinus banksiana* (15, 116); *Pinus contorta* var. *latifolia* (17)

carolina Tissot 1932; see *atlantica* (Wilson) 1919

caudelli (Wilson) 1919; *Lachniella*

ORIGINAL DESCRIPTION: Can. Entomol. 51:43–44 (215)
TYPE: USNM Can. Entomol. 51:43 (215)
REFERENCES: 111 (k, ld); 174 (ap. viv., al. viv., ld); 215 (ap. viv., al. viv.)
DISTRIBUTION: Canada: BC
HOSTS: *Picea* sp. (111, 215)

chamberlini Knowlton 1935; *Cinara*

ORIGINAL DESCRIPTION: Pan-Pac. Entomol. 11:141–142 (136)
TYPE: USNM [?]
REFERENCES: 136 (ap. viv., al. viv., ld)
DISTRIBUTION: United States: OR, WA
HOSTS: *Pinus monticola* (136)

chinookiana Hottes 1955; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 68:67–69 (83)

TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 68:67–69 (83)

REFERENCES: 17 (b); 83 (ap. viv.); 93 (ovip., ap. male, ld); 108 (k, ld)

DISTRIBUTION: United States: OR, UT, WA; Canada: AB

HOSTS: *Abies lasiocarpa* (83, 93)***cognita*** Hottes & Essig 1954; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 67:153–155 (121)

TYPE: UCB (ap. viv. original designation) Proc. Biol. Soc. Wash. 67:155 (121)

REFERENCES: 83 (al. viv.); 121 (ap. viv., ld)

DISTRIBUTION: United States: CA

HOSTS: *Juniperus communis* (83)***coloradensis*** (Gillette) 1917; *Lachnus*

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 10:133–134 (58)

TYPE: USNM The Thomas Say Foundation 5:27 (175)

REFERENCES: 10 (b, k); 15 (b); 17 (b); 58 (fund., ap. viv., al. viv., ovip., al. male, b); 63 (ap. viv., al. viv., b, k, ld); 111 (k, ld); 133 (ap. viv., al. viv., b, ld); 175 (fund., ap. viv., al. viv., ovip., al. male, b, k, ld)

DISTRIBUTION: United States: AK, CA, CO, ID, UT; Canada: AB, BC, MB, NB, NS, ON, PQ, SK, UT

HOSTS: *Picea engelmannii* (63, 111); *Picea glauca* (15, 17); *Picea pungens* (63, 111); *Picea sitchensis* (53, 178)**syn. *caliginosa*** Hottes 1961; *Cinara*

ORIGINAL DESCRIPTION: Great Basin Nat. 21:17–19 (109)

TYPE: USNM (ap. viv. original designation) Great Basin Nat. 21:19 (109)

REFERENCES: 45 (n. syn.); 109 (ap. viv., al. viv.); 111 (k, ld); 115 (n)

DISTRIBUTION: United States: AK, CO

HOSTS: *Picea engelmannii* (109, 111); *Picea pungens* (109)***commatula*** Hottes & Essig 1954; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 67:152–153 (121)

TYPE: UCB (al. viv. original designation) Proc. Biol. Soc. Wash. 67:153 (121)

REFERENCES: 114 (k, ld); 121 (ap. viv., al. viv., ld)

DISTRIBUTION: United States: CA

HOSTS: *Pseudotsuga menziesii* (114, 121)***confinis*** (Koch) 1856; *Lachnus*

ORIGINAL DESCRIPTION: Die Pflanzenläuse Aphiden:245 (144)

TYPE: none Bull. Brit. Mus. Nat. Hist. (Entomol.) 27(2):123 (43)

REFERENCES: 144 (ap. viv., al. viv., ld)

DISTRIBUTION: United States: UT; Canada: BC

HOSTS: *Abies grandis* (53); *Abies lasiocarpa* (53, 142)**syn. *abieticola*** (Cholodkovsky) 1899; *Lachnus*

ORIGINAL DESCRIPTION: Zool. Anz. 22:470–471 (33)

TYPE: unknown Bull. Brit. Mus. Nat. Hist. (Entomol.) 27(2):123 (43)

REFERENCES: 15 (b); 17 (b); 33 (ap. viv., ld); 43 (b, k, ld); 45 (n. syn.); 108 (k, ld); 120 (ld, n); 204 (ap. viv., k)

DISTRIBUTION: United States: CA; Canada: AB, BC, MB, NB, NF, NS, ON, PQ, SK

HOSTS: *Abies balsamea* (43, 108); *Abies concolor* (17); *Abies grandis* (17, 54); *Abies lasiocarpa* (17, 54); *Cedrus* sp. (108); *Picea* sp. (108, 120)

syn. ***lasiocarpae*** (Gillette & Palmer) 1930; *Lachnus*

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 22:543 (62)

TYPE: USNM (ap. viv. lectotype [?]) Ann. Entomol. Soc. Amer. 22:543 (62)

REFERENCES: 62 (fund., ap. viv., ld); 63 (ap. viv., k, ld); 71 (ovip.); 82 (al. viv.); 83 (al. male); 175 (fund., ap. viv., ovip., b, k, ld)

DISTRIBUTION: United States: CO, UT; Canada: BC, NB, NF, ON, PQ, SK

HOSTS: *Abies balsamea* (9, 162); *Abies lasiocarpa* (62, 71)

syn. ***vanduzeei*** (Swain) 1919; *Lachnus*

ORIGINAL DESCRIPTION: Univ. Calif. Pub. Entomol. 3:50–51 (196)

TYPE: UCB Univ. Calif. Pub. Entomol. 3:51 (196)

REFERENCES: 45 (n. syn.); 196 (ap. viv., al. viv., k, ld)

DISTRIBUTION: United States: CA

HOSTS: *Picea* sp. (196)

contortae Hottes 1958; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 71:75–76 (97)

TYPE: UCB (ap. viv. original designation) Proc. Biol. Soc. Wash. 71:76 (97)

REFERENCES: 97 (ap. viv., ld); 204 (ap. viv., k)

DISTRIBUTION: United States: CA

HOSTS: *Pinus contorta* (97)

costata (Zetterstedt) 1828; *Aphis*

ORIGINAL DESCRIPTION: Fauna Insectorum Lapponica 1:559 (220)

TYPE: EML Bull. Brit. Mus. Nat. Hist. (Entomol.) 27(2):134 (43)

REFERENCES: 5 (ap. viv., b, k, ld); 17 (b); 43 (b, k, ld); 111 (k, ld); 118 (n); 184 (ap. viv, b, k, ld)

DISTRIBUTION: United States: CA, PA, WA; Canada: BC, ON

HOSTS: *Picea abies* (43, 111); *Picea glauca* (53); *Picea pungens* (53); *Picea sitchensis* (118)

hom. ***costatus*** (Hartig) 1839; *Lachnus*

ORIGINAL DESCRIPTION: Entomol. Notizen 1(4):640–646 (67)

REFERENCES: 82 (homonym and synonym of *costata* (Zetterstedt))

cronartii Tissot & Pepper 1967; *Cinara*

ORIGINAL DESCRIPTION: Fla. Entomol. 50:1–10 (202)

TYPE: USNM (al. viv.) Fla. Entomol. 50:6 (202)

REFERENCES: 182 (ap. viv., al. viv., b, k, ld, p); 202 (ap. viv., al. viv., b, ld)

DISTRIBUTION: United States: FL, GA, MI, MS, SC, VA

HOSTS: *Pinus banksiana* (182); *Pinus clausa* (202); *Pinus elliottii* (182, 202);

Pinus serotina (182); *Pinus taeda* (182, 202)

cupressi (Buckton) 1881; *Lachnus*

ORIGINAL DESCRIPTION: Ray Society Monograph 3:46 (30)

TYPE: BM(NH) Bull. Brit. Mus. Nat. Hist. (Entomol.) 27(2):136 (43)

REFERENCES: 5 (ap. viv., b, k, ld); 30 (ap. viv., al. viv., cp); 43 (ap. viv., al. viv., b, k, ld); 118 (n)

DISTRIBUTION: United States: CA, NJ, NY, PA, UT; Canada: BC

HOSTS: *Cupressus macrocarpa* (118); *Juniperus chinensis* (43); *Juniperus scopulorum* (43, 155); *Juniperus virginiana* (43); *Thuja* sp. (142)

syn. *canadensis* Hottes & Bradley 1953; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 66:86–87 (116)

TYPE: CNC (ap. viv. original designation) Proc. Biol. Soc. Wash. 66:87 (116)

REFERENCES: 17 (b); 20 (n); 45 (n. syn.); 116 (ap. viv.)

DISTRIBUTION: United States: NY, PA; Canada: ON

HOSTS: *Juniperus virginiana* (116, 180)syn. *sabinae* (Gillette & Palmer) 1924; *Lachnus*

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 17:9–11 (59)

TYPE: USNM Ann. Entomol. Soc. Amer. 17:11 (59)

REFERENCES: 17 (b); 20 (n); 27 (b); 43 (n. syn.);

59 (fund., ap. viv., al. viv., ovip., al. male, ld); 63 (ap. viv., al. viv., b, k, ld);

165 (b); 175 (fund., ap. viv., al. viv., ovip., al. male, b, k, ld)

DISTRIBUTION: United States: CO, ID, MI, NY, UT, WY; Canada: BC

HOSTS: *Juniperus scopulorum* (59, 175); *Juniperus virginiana* (187)*curtithirsuta* Hottes & Essig 1954; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 67:275–276 (122)

TYPE: UCB (al. viv. original designation) Proc. Biol. Soc. Wash. 67:276 (122)

REFERENCES: 93 (ap. viv., ld); 108 (k, ld); 122 (al. viv.);

204 (fund., ap. viv., al. viv., ovip., b, k, p)

DISTRIBUTION: United States: CA, OR

HOSTS: *Abies concolor* (93, 108)*curtivillosa* Hottes 1955; see *villosa* (Gillette & Palmer) 1931*curtiwahtolca* Hottes 1955; see *wahtolca* Hottes 1953*curvipes* (Patch) 1912; *Lachnus*

ORIGINAL DESCRIPTION: Maine Agr. Exp. Sta. Bull. 202:161–163 (176)

TYPE: MAES Proc. Biol. Soc. Wash. 73:223 (108)

REFERENCES: 1 (b, k); 15 (b); 17 (b); 29 (b, p); 63 (ap. viv., al. viv., k, ld); 108 (k, ld);

121 (n); 133 (b); 143 (n); 170 (ap. viv., al. viv., b, ld, p);

175 (ap. viv., al. viv., ovip., b, k, ld); 176 (ap. viv., al. viv., ovip., al. male, ld);

177 (ap. viv., al. viv.); 204 (ap. viv., al. viv., ovip., al. male, b, k, p)

DISTRIBUTION: United States: CA, CO, CT, ID, MA, ME, NY, OR, UT; Canada: AB, BC,

MB, NB, NS, ON, PQ, SK; Mexico: DF

HOSTS: *Abies balsamea* (15, 177); *Abies concolor* (108, 175); *Abies grandis* (65, 108);*Abies lasiocarpa* (36, 63); *Abies magnifica* (157); *Abies religiosa* (170); *Cedrus deodara* (108, 121);*Juniperus* sp. (64); *Picea engelmannii* (108, 143); *Picea glauca* (1)*diabola* Hottes 1961; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 74:95–97 (113)

TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 74:97 (113)

REFERENCES: 113 (ap. viv., al. viv., ld)

DISTRIBUTION: United States: CA

HOSTS: *Pinus coulteri* (113)*difficilis* Hottes & Frison 1931; see *juniperivora* (Wilson) 1919*dubia* Hottes & Essig 1954; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 67:156–157 (121)

TYPE: UCB (ap. viv. original designation) Proc. Biol. Soc. Wash. 67:157 (121)

REFERENCES: 114 (k, ld); 121 (ap. viv., ld); 204 (ap. viv., k)

DISTRIBUTION: United States: CA, OR

HOSTS: *Pseudotsuga menziesii* (121)

edulis (Wilson) 1919; *Lachniella*

ORIGINAL DESCRIPTION: Can. Entomol. 51:44–45 (215)

TYPE: UMN (slides from type series) Ann. Entomol. Soc. Amer. 75(1):75 (34)

REFERENCES: 63 (ap. viv., al. viv., k, ld); 107 (k, ld); 133 (ld, n);

171 (fund., ap. viv., al. viv., ovip., al. male, b, ld);

175 (fund., ap. viv., al. viv., ovip., al. male, b, k, ld); 204 (ap. viv., k);

215 (ap. viv., al. viv.)

DISTRIBUTION: United States: CA, CO, NV, UT

HOSTS: *Pinus edulis* (107, 171); *Pinus monophylla* (107, 133)

engelmanniensis (Gillette & Palmer) 1925; *Lachnus*

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 18:527–530 (60)

TYPE: USNM The Thomas Say Foundation 5:30 (175)

REFERENCES: 60 (ap. viv., ovip., al. male, cp, ld); 63 (ap. viv., k, ld); 82 (al. viv.);

111 (k, ld); 175 (ap. viv., ovip., al. male, b, k, ld)

DISTRIBUTION: United States: CO, NV, OR, UT

HOSTS: *Abies* sp. (42); *Picea engelmannii* (82, 111)

engisma Hottes & Knowlton 1954; see *obscura* Bradley 1953

essigi Hottes 1961; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 74:1–2 (112)

TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 74:2 (112)

REFERENCES: 112 (ap. viv., ld)

DISTRIBUTION: United States: CA

HOSTS: *Pinus attenuata* (112)

ferrisi (Swain) 1918; *Lachnus*

ORIGINAL DESCRIPTION: Trans. Am. Entomol. Soc. 44:9–11 (195)

TYPE: UCB (al. viv. lectotype) Proc. Biol. Soc. Wash. 67:98 (120)

REFERENCES: 120 (al. viv., ap. viv., ld); 143 (n); 195 (ap. viv., al. viv., ld); 196 (k, n)

DISTRIBUTION: United States: CA, ID, MN, MT, OR; Canada: BC

HOSTS: *Abies concolor* (195, 196); *Pinus albicaulis* (143); *Pinus monticola* (53, 64)

flexilis (Gillette & Palmer) 1924; *Lachnus*

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 17:30 (59)

TYPE: USNM The Thomas Say Foundation 5:30 (175)

REFERENCES: 59 (ap. viv., al. viv., ovip., ld); 63 (ap. viv., al. viv., b, k, ld);

175 (ap. viv., al. viv., ovip., b, k, ld)

DISTRIBUTION: United States: CO

HOSTS: *Pinus flexilis* (59, 63)

fornacula Hottes 1930; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 43:186 (70)

TYPE: UMN (ap. viv. original designation) Proc. Biol. Soc. Wash. 43:186 (70)

REFERENCES: 10 (b, k); 15 (b); 17 (b, ld); 63 (ap. viv.); 70 (ap. viv.);

71 (fund., ovip., al. male); 82 (al. viv.); 111 (k, ld); 115 (n); 175 (ap. viv., b, k)

DISTRIBUTION: United States: AK, CO, DE, ID, IN, MN, NY, OR, PA, UT;
 Canada: AB, BC, MB, NB, NF, NS, NT, ON, PE, PQ, SK, UT
 HOSTS: *Picea abies* (153, 180); *Picea engelmannii* (82, 111); *Picea glauca* (15, 115);
Picea mariana (15, 115); *Picea pungens* (71, 175); *Picea rubens* (17); *Picea sitchensis* (53)

fresai Blanchard 1939; *Cinara*

ORIGINAL DESCRIPTION: *Physis* 17:860 (6)
 TYPE: ISV Bull. Brit. Mus. Nat. Hist. (Entomol.) 27(2):140 (43)
 REFERENCES: 5 (ap. viv., b, k, ld); 6 (al. viv., ld); 43 (ap. viv., al. viv., b, k)
 DISTRIBUTION: United States: CA, FL, OR
 HOSTS: *Cupressus goveniana* var. *pygmaea* (208); *Cupressus macnabiana* (208);
Cupressus sempervirens (160); *Juniperus chinensis* (160); *Juniperus communis* (208);
Juniperus horizontalis (208); *Juniperus monosperma* (208); *Juniperus occidentalis* (160);
Juniperus sabina (208); *Juniperus scopulorum* (43, 160); *Juniperus silicicola* (43);
Juniperus squamata (208); *Juniperus virginiana* (160); *Pinus coulteri* (208)

syn. **maui** Bradley 1965; *Cupressobium*

ORIGINAL DESCRIPTION: Can. Entomol. 97:668–670 (21)
 TYPE: CNC (ap. viv. original designation) Can. Entomol. 97:670 (21)
 REFERENCES: 21 (ap. viv., n)
 DISTRIBUTION: United States: HI
 HOSTS: *Cryptomeria japonica* (21)

syn. **wacasassae** Tissot 1944; *Cinara*

ORIGINAL DESCRIPTION: Fla. Entomol. 27:49–52 (200)
 TYPE: USNM (al. viv. original designation) Fla. Entomol. 27:51 (200)
 REFERENCES: 43 (n. syn.); 200 (ap. viv., al. viv., b, ld, n)
 DISTRIBUTION: United States: FL
 HOSTS: *Juniperus silicicola* (200)

gentneri Hottes 1957; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 70:1–3 (92)
 TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 70:2 (92)
 REFERENCES: 92 (ap. viv., ovip., ld); 108 (k, ld)
 DISTRIBUTION: United States: OR
 HOSTS: *Abies concolor* (157); *Abies grandis* (92, 108)

glabra (Gillette & Palmer) 1924; *Lachnus*

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 17:35–37 (59)
 TYPE: USNM The Thomas Say Foundation 5:32 (175)
 REFERENCES: 59 (fund., ap. viv., al. viv., ovip., al. male, ld); 63 (ap. viv., al. viv., b, k, ld);
 175 (fund., ap. viv., al. viv., ovip., al. male, b, k, ld)
 DISTRIBUTION: United States: CO
 HOSTS: *Pinus ponderosa* (59); *Pinus ponderosa* var. *scopulorum* (175)

glacialis Hottes 1964; *Cinara*

ORIGINAL DESCRIPTION: Entomol. Ber. 24:51–53 (115)
 TYPE: USNM (ap. viv. original designation) Entomol. Ber. 24:53 (115)
 REFERENCES: 115 (ap. viv., ld)
 DISTRIBUTION: United States: AK
 HOSTS: *Picea sitchensis* (115)

glehna (Essig) 1915; *Lachnus*

ORIGINAL DESCRIPTION: Pom. J. Entomol. Zool. 7:180 (47)

TYPE: UCB Univ. Calif. Pub. Entomol. 3:1–221 (196)

REFERENCES: 47 (ap. viv., al. viv., b, ld); 63 (ap. viv., al. viv., b, k, ld); 111 (k, ld); 133 (ap. viv., b, ld); 143 (n); 196 (k, n)

DISTRIBUTION: United States: AZ, CA, CO, UT; Canada: W. Canada

HOSTS: *Picea engelmannii* (111); *Picea glehnii* (47, 63); *Picea pungens* (133, 143)***gracilis*** (Wilson) 1919; *Lachmiella*

ORIGINAL DESCRIPTION: Can. Entomol. 51:20–21 (214)

TYPE: USNM (al. viv. lectotype) Fla. Agr. Exp. Sta. Mono. Ser. 3:47 (182)

REFERENCES: 22 (b); 174 (ap. viv., al. viv., ld); 177 (ap. viv., al. viv.); 179 (b); 182 (ap. viv., al. viv., ovip., ap. male, b, k, ld, p); 214 (ap. viv., al. viv.)

DISTRIBUTION: United States: CT, DC, DE, NC, OH, PA, SC, VA WV; Canada: MB

HOSTS: *Pinus banksiana* (22); *Pinus taeda* (158, 179); *Pinus virginiana* (174, 214)**syn. *tunicula*** Hottes 1958; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 71:187–189 (103)

TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 71:189 (103)

REFERENCES: 103 (ap. viv., al. viv., ld); 182 (n. syn.)

DISTRIBUTION: United States: DE

HOSTS: *Pinus virginiana* (103)***grande*** Hottes 1956; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 69:219–220 (90)

TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 69:220 (90)

REFERENCES: 90 (ap. viv., ld); 108 (k, ld)

DISTRIBUTION: United States: AZ

HOSTS: *Abies concolor* (90, 108)***harmonia*** Hottes 1958; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 71:192–195 (104)

TYPE: USNM (al. viv. original designation) Proc. Biol. Soc. Wash. 71:195 (104)

REFERENCES: 10 (b, k); 104 (ap. viv., al. viv., ld); 182 (ap. viv., al. viv., ovip., b, k, ld, p)

DISTRIBUTION: United States: DE, ME, MI, OH, PA, WV, WI; Canada: ON, PQ

HOSTS: *Pinus resinosa* (10, 104)***hirsuta*** Hottes & Essig 1954; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 67:93–94 (120)

TYPE: UCB (ap. viv. original designation) Proc. Biol. Soc. Wash. 67:94 (120)

REFERENCES: 120 (ap. viv., ld)

DISTRIBUTION: United States: OR

HOSTS: *Pinus monticola* (120)***hirta*** Hottes & Essig 1953; see *osborni* Knowlton 1942***hirticula*** Hottes 1958; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 71:87–89 (100)

TYPE: UCB (ap. viv. original designation) Proc. Biol. Soc. Wash. 71:89 (100)

REFERENCES: 100 (ap. viv., ld)

DISTRIBUTION: United States: WA

HOSTS: *Pinus lambertiana* (100)

hottesi (Gillette & Palmer) 1924; *Lachnus*

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 17:22 (59)

TYPE: USNM The Thomas Say Foundation 5:32 (175)

REFERENCES: 10 (b, k); 15 (b); 17 (b); 59 (fund., ap. viv., al. viv., ld);

63 (ap. viv., al. viv., b, k, ld); 83 (ovip., ap. male); 111 (k, ld); 133 (ap. viv., al. viv., b, ld);

143 (n); 175 (fund., ap. viv., al. viv., b, k, ld)

DISTRIBUTION: United States: CO, ID, UT; Canada: AB, BC, MB, NB, NS, ON, PE, PQ, SK

HOSTS: *Picea engelmannii* (83, 111); *Picea glauca* (15, 53); *Picea mariana* (15, 17)***idahoensis*** Knowlton 1935; *Cinara*

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 28:283–284 (134)

TYPE: lost Proc. Entomol. Soc. Wash. 88(2):233 (207)

REFERENCES: 134 (ap. viv., al. viv., ld); 175 (ap. viv., al. viv., k)

DISTRIBUTION: United States: ID

HOSTS: *Thuja* sp. (134)***inoptis*** (Wilson) 1919; see *pinea* (Mordvilko) 1895***inscripta*** Hottes & Essig 1953; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 66:170–171 (118)

TYPE: UCB (ap. viv. original designation) Proc. Biol. Soc. Wash. 66:171 (118)

REFERENCES: 17 (b); 118 (ap. viv.)

DISTRIBUTION: United States: OR; Canada: BC

HOSTS: *Pinus albicaulis* (53, 118)***jucunda*** Hottes 1958; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 71:171–172 (102)

TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 71:172 (102)

REFERENCES: 102 (ap. viv., ld); 111 (k, ld)

DISTRIBUTION: United States: CO, ND, SD

HOSTS: *Picea glauca* (102)***juniperensis*** (Gillette & Palmer) 1925; *Lachnus*

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 18:526–527 (60)

TYPE: USNM The Thomas Say Foundation 5:33 (175)

REFERENCES: 60 (al. viv., ovip., cp, ld); 63 (al. viv., b, k, ld); 175 (al. viv., ovip., b, k, ld)

DISTRIBUTION: United States: CO, OR

HOSTS: *Juniperus communis* (60, 63)***juniperi*** (De Geer) 1773; *Aphis*

ORIGINAL DESCRIPTION: Second Mémoire 3:56 (39)

TYPE: unknown Bull. Brit. Mus. Nat. Hist. (Entomol.) 27(2):141 (43)

REFERENCES: 5 (ap. viv., b, k, ld); 10 (b, k, as *rubicundus* (Wilson)); 15 (b); 17 (b, ld);

43 (ap. viv., al. viv., b, k); 46 (ap. viv., al. viv., b, ld)

DISTRIBUTION: United States: CA, MN, NY, OR, PA, UT; Canada: AB, BC, MB, ON, PQ, SK

HOSTS: *Calocedrus decurrens* (208); *Cupressus goveniana* var. *pygmaea* (208);*Juniperus chinensis* (140); *Juniperus communis* (10, 15); *Juniperus squamata* (53);*Juniperus virginiana* (180); *Thuja occidentalis* (46)

juniperivora (Wilson) 1919; *Lachnus*

ORIGINAL DESCRIPTION: Entomol. News 30:6–7 (216)

TYPE: UMN (cotypes) Ann. Entomol. Soc. Amer. 75(1):75 (34)

REFERENCES: 84 (n); 177 (al. viv.); 199 (b, k, ld); 200 (n); 216 (al. viv., ld)

DISTRIBUTION: United States: CT, FL, LA, MD

HOSTS: *Juniperus silicicola* (199, 200); *Juniperus virginiana* (177, 216)**syn. *difficilis*** Hottes & Frison 1931; *Cinara*

ORIGINAL DESCRIPTION: Ill. Nat. Hist. Surv. Bull. 19:153–155 (124)

TYPE: INHS (al. viv. original designation) Ill. Nat. Hist. Surv. Bull. 19:155 (124)

REFERENCES: 84 (n. syn.); 124 (ap. viv., al. viv., b, k, ld)

DISTRIBUTION: United States: IL

HOSTS: *Juniperus virginiana* (124)***inoi*** Hottes & Essig 1953; see *arizonica* (Wilson) 1919***kiusa*** Hottes 1957; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 70:3–4 (92)

TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 70:4 (92)

REFERENCES: 92 (ap. viv., ld); 108 (k, ld)

DISTRIBUTION: United States: ID, OR

HOSTS: *Abies concolor* (92, 108)***kocheta*** Hottes 1958; see *nigra* (Wilson) 1919***kuchea*** Hottes 1958; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 71:85–86 (99)

TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 71:86 (99)

REFERENCES: 99 (ap. viv., ld)

DISTRIBUTION: United States: ID; Canada: BC

HOSTS: *Pinus monticola* (53, 99)***laricifex*** (Fitch) 1858; *Lachnus*

ORIGINAL DESCRIPTION: Trans. N.Y. Agr. Soc. 17:752 (50)

TYPE: USNM (ap. viv.) Proc. Biol. Soc. Wash. 66:158 (76)

REFERENCES: 10 (b, k, as *laricis* (Hartig)); 15 (b); 17 (b); 50 (ap. viv., b); 76 (ap. viv., b); 167 (ap. viv., b); 197 (ap. viv., b)

DISTRIBUTION: United States: IL, MN, NY; Canada: AB, MB, NB, NF, NS, NT, ON, PQ, SK

HOSTS: *Larix laricina* (10, 15)***laricifoliae*** (Wilson) 1915; *Lachnus*

ORIGINAL DESCRIPTION: Trans. Amer. Entomol. Soc. 41:102 (213)

TYPE: UMN (cotypes) Ann. Entomol. Soc. Amer. 75(1):75 (34)

REFERENCES: 17 (b, ld); 213 (ap. viv., al. viv., ld)

DISTRIBUTION: United States: OR; Canada: BC

HOSTS: *Larix occidentalis* (178, 213)***laricis*** (Hartig) 1839; *Lachnus*

ORIGINAL DESCRIPTION: Entomol. Notizen 1(4):645 (67)

TYPE: BM(NH) (lectotype) Bull. Brit. Mus. Nat. Hist. (Entomol.) 27(2):146 (43)

REFERENCES: 1 (b, k); 10 (misidentification of *laricifex* (Fitch)); 43 (ap. viv., al. viv., b, k); 124 (n); 177 (ap. viv., al. viv.); 184 (ap. viv., b, k, ld)
 DISTRIBUTION: United States: CT, IL, NY, PA; Canada: NS
 HOSTS: *Larix laricina* (1, 124)

lasiocarpae (Gillette & Palmer) 1930; see *confinis* (Koch) 1856

lassenensis Hottes & Essig 1953; see *arizonica* (Wilson) 1919

longispinosa Tissot 1932; see *pergandei* (Wilson) 1919

louisianensis Boudreaux 1948; *Cinara*

ORIGINAL DESCRIPTION: Fla. Entomol. 31:96–98 (7)
 TYPE: Boudreaux (al. viv. original designation) Fla. Entomol. 31:98 (7)
 REFERENCES: 7 (ap. viv., al. viv., b, ld); 118 (n); 203 (ap. viv., al. viv., k); 207 (ap. viv., al. viv., ld, p)
 DISTRIBUTION: United States: CA, LA, OK; Mexico: MEX, DF
 HOSTS: *Cupressus* (207); *Thuja orientalis* (118)

lunata Hottes 1961; see *melaina* Boudreaux 1948

lyallii Bradley 1956; *Cinara*

ORIGINAL DESCRIPTION: Can. Entomol. 88:494–495 (12)
 TYPE: CNC (ap. viv. original designation) Can. Entomol. 88:495 (12)
 REFERENCES: 12 (ap. viv., ovip., male, ld); 17 (b, ld)
 DISTRIBUTION: Canada: AB
 HOSTS: *Larix laricina* (12); *Larix lyallii* (17)

manitobensis Bradley 1963; *Cinara*

ORIGINAL DESCRIPTION: Can. Entomol. 95:287–290 (19)
 TYPE: CNC (ovip. original designation) Can. Entomol. 95:290 (19)
 REFERENCES: 19 (ap. viv., al. viv., ovip., ap. male, ld)
 DISTRIBUTION: Canada: MB
 HOSTS: *Juniperus horizontalis* (19)

mariana Bradley 1956; *Cinara*

ORIGINAL DESCRIPTION: Can. Entomol. 88:706 (13)
 TYPE: CNC (ap. viv. original designation) Can. Entomol. 88:706 (13)
 REFERENCES: 13 (ap. viv., al. viv., ld)
 DISTRIBUTION: Canada: SK
 HOSTS: *Picea mariana* (13)

medispinosa (Gillette & Palmer) 1929; *Lachnus*

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 22:30 (61)
 TYPE: USNM The Thomas Say Foundation 5:35 (175)
 REFERENCES: 17 (b); 61 (n); 63 (ap. viv., al. viv., b, k, ld); 133 (fund., ap. viv., al. viv., b, ld); 143 (n); 175 (fund., ap. viv., al. viv., ovip., al. male, b, k, ld); 204 (ap. viv., k)
 DISTRIBUTION: United States: CA, CO, ID, OR, UT; Canada: AB, BC
 HOSTS: *Pinus contorta* (133, 143); *Pinus contorta* var. *latifolia* (17, 53); *Pinus contorta* var. *murrayana* (63, 175)

syn. ***similis*** (Gillette & Palmer) 1924; *Lachnus*

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 17:23–26 (59)

TYPE: USNM The Thomas Say Foundation 5:35 (175)

REFERENCES: 59 (fund., ap. viv., al. viv., ovip., al. male, ld); 61 (name preoccupied by *similis* (van der Goot))

DISTRIBUTION: United States: CO

HOSTS: *Pinus contorta* (59)***melaina*** Boudreaux 1948; *Cinara*

ORIGINAL DESCRIPTION: Fla. Entomol. 31:98–100 (7)

TYPE: Boudreaux (al. viv. original designation) Fla. Entomol. 31:99 (7)

REFERENCES: 7 (ap. viv., al. viv., b, ld); 48 (ap. viv., b); 179 (b)

DISTRIBUTION: United States: DE, FL, GA, LA, NC, SC

HOSTS: *Pinus elliottii* (8); *Pinus glabra* (7); *Pinus palustris* (7); *Pinus taeda* (7, 48)syn. ***lunata*** Hottes 1961; *Cinara*

ORIGINAL DESCRIPTION: Great Basin Nat. 21:20–22 (110)

TYPE: USNM (ap. viv. original designation) Great Basin Nat. 21:20–22 (110)

REFERENCES: 110 (ap. viv., al. viv., ld); 182 (n. syn.)

DISTRIBUTION: United States: DE

HOSTS: *Pinus virginiana* (110)***metalica*** Hottes 1956; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 69:85–87 (88)

TYPE: USNM (ovip. original designation) Proc. Biol. Soc. Wash. 69:86 (88)

REFERENCES: 88 (ovip., al. male); 90 (ovip., male, ld); 107 (ap. viv., k, ld)

DISTRIBUTION: United States: AZ, CO

HOSTS: *Pinus edulis* (107)***minuta*** Hottes & Knowlton 1954; *Cinara*

ORIGINAL DESCRIPTION: Great Basin Nat. 14:11 (125)

TYPE: USNM (ovip. original designation) Great Basin Nat. 14:11 (125)

REFERENCES: 108 (k, ld); 125 (ovip., ld)

DISTRIBUTION: United States: UT

HOSTS: *Abies lasiocarpa* (108, 125)***moketa*** Hottes 1957; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 70:6–7 (92)

TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 70:7 (92)

REFERENCES: 92 (ap. viv., ld); 204 (ap. viv., al. viv., b, k, p)

DISTRIBUTION: United States: CA

HOSTS: *Pinus lambertiana* (92, 204)***montanensis*** (Wilson) 1919; *Lachniella*

ORIGINAL DESCRIPTION: Can. Entomol. 51:45–46 (215)

TYPE: UMN (cotype slides) Ann. Entomol. Soc. Amer. 75(1):75 (34)

REFERENCES: 215 (ap. viv., al. viv.)

DISTRIBUTION: United States: MT

HOSTS: *Pinus nigra* (215)

montanesea Hottes 1961; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 74:97–100 (113)

TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 74:100 (113)

REFERENCES: 113 (ap. viv., al. viv., ld)

DISTRIBUTION: United States: CA

HOSTS: *Pinus coulteri* (113)**murrayanae** (Gillette & Palmer) 1924; *Lachnus*

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 17:26–27 (59)

TYPE: USNM Ann. Entomol. Soc. Amer. 24:861 (63)

REFERENCES: 17 (b, ld); 59 (fund., ap. viv., al. viv., ovip., al. male); 63 (b, k, ld, n); 143 (n); 175 (ap. viv., al. viv., ovip., male, b, k, ld)

DISTRIBUTION: United States: CA, CO, ID, UT; Canada: BC

HOSTS: *Pinus albicaulis* (152); *Pinus contorta* (63, 143); *Pinus contorta* var. *latifolia* (17, 53)**nepticula** Hottes 1958; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 71:63–64 (96)

TYPE: CNC (al. viv. original designation) Proc. Biol. Soc. Wash. 71:64 (96)

REFERENCES: 96 (al. viv., ld); 111 (k, ld)

DISTRIBUTION: Canada: NS

HOSTS: *Picea rubens* (96, 111)**newelli** Tissot 1939; *Cinara*

ORIGINAL DESCRIPTION: Fla. Entomol. 22:38–41 (199)

TYPE: USNM (al. viv. original designation) Fla. Entomol. 22:41 (199)

REFERENCES: 182 (ap. viv., al. viv., b, k, ld, p); 199 (ap. viv., al. viv., b, k, ld)

DISTRIBUTION: United States: FL

HOSTS: *Pinus elliotii* (182, 199); *Pinus taeda* (182)**nigra** (Wilson) 1919; *Lachniella*

ORIGINAL DESCRIPTION: Can. Entomol. 51:41–42 (215)

TYPE: UMN (ap. viv. lectotype) Fla. Agr. Exp. Sta. Mono. Ser. 3:72–73 (182)

REFERENCES: 182 (ap. viv., al. viv., ovip., ap. male, b, k, ld, p); 215 (ap. viv., al. viv.)

DISTRIBUTION: United States: MI, UT, WI

HOSTS: *Pinus banksiana* (182); *Pinus* sp. (142)syn. **kocheta** Hottes 1958; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 71:81–83 (98)

TYPE: USNM (al. viv. original designation) Proc. Biol. Soc. Wash. 71:83 (98)

REFERENCES: 98 (al. viv., ld); 182 (n. syn.)

DISTRIBUTION: United States: MI

HOSTS: *Pinus banksiana* (98)**nigripes** Bradley 1962; *Cinara*

ORIGINAL DESCRIPTION: Can. Entomol. 94:1175–1178 (18)

TYPE: CNC (al. viv. original designation) Can. Entomol. 94:1178 (18)

REFERENCES: 18 (fund., ap. viv., al. viv., ovip., ap. male, b, ld)

DISTRIBUTION: United States: AK; Canada: BC, ON

HOSTS: *Picea glauca* (18); *Picea mariana* (18); *Picea sitchensis* (53)

nigrita Hottes & Essig 1953; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 66:208–209 (119)

TYPE: UCB (al. viv. original designation) Proc. Biol. Soc. Wash. 66:209 (119)

REFERENCES: 119 (al. viv., ld)

DISTRIBUTION: United States: AZ

HOSTS: *Pinus ponderosa* (119)***nimbata*** Hottes 1954; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 67:253–256 (82)

TYPE: USNM (al. viv. original designation) Proc. Biol. Soc. Wash. 67:256 (82)

REFERENCES: 82 (ap. viv., al. viv., ovip., al. male); 83 (ld); 111 (k, ld); 115 (n)

DISTRIBUTION: United States: AK, CO; Canada: W. Canada

HOSTS: *Picea engelmannii* (82, 111)***nitidula*** Hottes 1954; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 67:256–258 (82)

TYPE: USNM (al. viv. original designation) Proc. Biol. Soc. Wash. 67:257 (82)

REFERENCES: 82 (ap. viv., al. viv.); 90 (ovip., ap. male, ld); 107 (k, ld)

DISTRIBUTION: United States: CO, UT

HOSTS: *Pinus edulis* (82, 107)***obscura*** Bradley 1953; *Cinara*

ORIGINAL DESCRIPTION: Can. Entomol. 85:431 (11)

TYPE: CNC (al. viv. original designation) Can. Entomol. 85:431 (11)

REFERENCES: 11 (al. viv., ap. viv., ld); 17 (b); 83 (n); 111 (k, ld)

DISTRIBUTION: Canada: AB, BC, NB, NF, NT, SK

HOSTS: *Picea engelmannii* (53); *Picea glauca* (11, 111)syn. ***enigma*** Hottes & Knowlton 1954; *Cinara*

ORIGINAL DESCRIPTION: Great Basin Nat. 14:11–13 (125)

TYPE: USNM (ap. viv. original designation) Great Basin Nat. 14:13 (125)

REFERENCES: 83 (n. syn.); 125 (ap. viv., ld)

DISTRIBUTION: United States: CO

HOSTS: *Pinus* sp. (125)***occidentalis*** (Davidson) 1909; *Lachnus*

ORIGINAL DESCRIPTION: J. Econ. Entomol. 2:300 (35)

TYPE: USNM Ann. Entomol. Soc. Amer. 75(1):77 (34)

REFERENCES: 17 (b, ld); 35 (ap. viv.); 36 (b, n); 63 (ap. viv., al. viv., b, k, ld); 108 (b, k, ld); 133 (b); 143 (n); 171 (fund., ap. viv., al. viv., ovip., al. male, b, ld);

175 (fund., ap. viv., al. viv., ovip., al. male, b, k, ld); 196 (k, n);

204 (fund., ap. viv., al. viv., ovip., al. male, b, k, p); 211 (fund., al. viv., ovip., al. male)

DISTRIBUTION: United States: AZ, CA, CO, ID, NV, OR, UT; Canada: BC, PQ

HOSTS: *Abies amabilis* (66); *Abies balsamea* (53); *Abies concolor* (175, 196);*Abies grandis* (35, 211); *Abies lasiocarpa* (63, 171); *Abies sibiricae* (52, 53)***onatei*** Hottes & Essig 1953; see ***ponderosae*** (Williams) 1910***ontarioensis*** Bradley 1962; *Cinara*

ORIGINAL DESCRIPTION: Can. Entomol. 94:1178–1181 (18)

TYPE: CNC (al. viv. original designation) Can. Entomol. 94:1178–1181 (18)

REFERENCES: 18 (al. viv., ap. viv., b, ld); 22 (b)

DISTRIBUTION: Canada: MB, ON

HOSTS: *Pinus banksiana* (18, 22)

oregonensis (Wilson) 1915; *Lachnus*

ORIGINAL DESCRIPTION: Trans. Amer. Entomol. Soc. 41:103 (213)

TYPE: UMN (two slides labeled type) Ann. Entomol. Soc. Amer. 75(1):75 (34)

REFERENCES: 17 (b); 63 (ap. viv., al. viv., b, k, ld);

171 (fund., ap. viv., al. viv., ovip., ap. male, b, ld);

175 (fund., ap. viv., al. viv., ovip., ap. male, b, k, ld); 196 (k, n); 213 (ap. viv., al. viv., ld)

DISTRIBUTION: United States: CA, CO, ID, OR, UT; Canada: AB, SK

HOSTS: *Pinus contorta* var. *latifolia* (17); *Pinus contorta* var. *murrayana* (63, 171);

Pinus ponderosa (63, 175)

oregoni Hottes & Essig 1953; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 66:171–172 (118)

TYPE: UCB (ap. viv. original designation) Proc. Biol. Soc. Wash. 66:172 (118)

REFERENCES: 118 (ap. viv.)

DISTRIBUTION: United States: OR; Canada: BC

HOSTS: *Pinus albicaulis* (53, 118)

osborni Knowlton 1942; *Cinara*

ORIGINAL DESCRIPTION: Great Basin Nat. 3:7 (139)

TYPE: USNM (ap. viv. original designation) Great Basin Nat. 3:7 (139)

REFERENCES: 108 (k, ld); 122 (n); 139 (ap. viv., ld); 175 (ap. viv., k, ld); 204 (ap. viv., k)

DISTRIBUTION: United States: AZ, CA, NV, UT

HOSTS: *Abies concolor* (108); *Abies lasiocarpa* (108); *Pseudotsuga menziesii* (142, 175)

syn. ***alticola*** Hottes & Essig 1954; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 67:151–152 (121)

TYPE: UCB (ap. viv. original designation) Proc. Biol. Soc. Wash. 67:152 (121)

REFERENCES: 121 (ap. viv., ld); 122 (n. syn.)

DISTRIBUTION: United States: NV

HOSTS: none given, probably *Abies* spp.

syn. ***hirta*** Hottes & Essig 1953; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 66:209–210 (119)

TYPE: UCB (ap. viv. original designation) Proc. Biol. Soc. Wash. 66:210 (119)

REFERENCES: 45 (n. syn.); 108 (k, ld); 119 (ap. viv., ld); 122 (n)

DISTRIBUTION: United States: AZ

HOSTS: *Abies concolor* (108, 122)

osborni Tissot 1944; see ***pinivora*** (Wilson) 1919

osborniana Tissot 1945; see ***pinivora*** (Wilson) 1919

pacifica (Wilson) 1919; *Lachniella*

ORIGINAL DESCRIPTION: Can. Entomol. 51:21 (214)

TYPE: USNM Can. Entomol. 51:21 (214)

REFERENCES: 108 (k, ld); 174 (al. viv., ld); 214 (al. viv.)

DISTRIBUTION: United States: CA

HOSTS: *Abies grandis* (174, 214)

pallidipes Hottes 1958; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 71:8–10 (94)

TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 71:9 (94)

REFERENCES: 94 (ap. viv., al. male, ld); 111 (k, ld)

DISTRIBUTION: United States: ME

HOSTS: *Picea glauca* (94, 111)***palmerae*** (Gillette) 1917; see ***pruinosa*** (Hartig) 1841***parvavillosa*** Hottes 1955; see ***villosa*** (Gillette & Palmer) 1931***parvicornis*** Hottes 1958; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 71:76–79 (97)

TYPE: USNM (ovip. original designation) Proc. Biol. Soc. Wash. 71:79 (97)

REFERENCES: 97 (ovip., al. male, ld)

DISTRIBUTION: United States: MT

HOSTS: *Pinus contorta* (97)***pergandei*** (Wilson) 1919; *Lachniella*

ORIGINAL DESCRIPTION: Can. Entomol. 51:46–47 (215)

TYPE: USNM (cotypes) Fla. Agr. Exp. Sta. Mono. Ser. 3:80 (182)

REFERENCES: 9 (b); 10 (b, k); 15 (b); 17 (b, ld); 22 (b); 174 (ap. viv., al. viv., ld); 177 (ap. viv., al. viv.); 179 (b); 182 (ap. viv., al. viv., ovip., al. male, b, k, ld, p); 215 (ap. viv., al. viv.)

DISTRIBUTION: United States: AL, CT, DC, DE, FL, GA, LA, MD, MI, MN, NE, NC, NJ, NY, OH, PA, SC, VA, VT, WI; Canada: AB, BC, MB, NB, ON, PQ, SK

HOSTS: *Pinus banksiana* (10, 15); *Pinus clausa* (182); *Pinus contorta* var. *latifolia* (17, 180);*Pinus densiflora* (180); *Pinus echinata* (182); *Pinus glabra* (182); *Pinus mugo* (9, 10);*Pinus rigida* (180, 182); *Pinus taeda* (179, 182); *Pinus virginiana* (174, 215)**syn. *longispinosa*** Tissot 1932; *Cinara*

ORIGINAL DESCRIPTION: Fla. Entomol. 16:4–5 (198)

TYPE: USNM (al. viv. original designation) Fla. Entomol. 16:5 (198)

REFERENCES: 10 (n. syn.); 198 (ap. viv., al. viv., ld); 199 (b, k, ld); 200 (n)

DISTRIBUTION: United States: FL, LA, NJ, PA

HOSTS: *Pinus banksiana* (162); *Pinus glabra* (8, 199); *Pinus rigida* (180); *Pinus taeda* (198, 199); *Pinus virginiana* (180)***petersoni*** Bradley 1965; *Cinara*

ORIGINAL DESCRIPTION: Can. Entomol. 95:290–291 (19)

TYPE: CNC (ap. viv. original designation) Can. Entomol. 95:291 (19)

REFERENCES: 19 (ap. viv., ld)

DISTRIBUTION: Canada: MB

HOSTS: *Juniperus horizontalis* (19)***piceicola*** (Cholodkovsky) 1896; see ***pilicornis*** (Hartig) 1841***pilicornis*** (Hartig) 1841; *Aphis*

ORIGINAL DESCRIPTION: Z. Entomol. (Germar) 3:369 (68)

TYPE: types presumed lost Great Basin Nat. 21:46 (111)

REFERENCES: 43 (ap. viv., al. viv., b, k, ld); 68 (ap. viv.); 76 (n); 111 (k, ld); 184 (ap. viv., b, k, ld); 194 (ap. viv.)

DISTRIBUTION: United States: CA, DC, DE, ID, IL, MA, MD, NJ, OR, PA, UT;

Canada: BC, PQ

HOSTS: *Cryptomeria japonica* (208); *Picea abies* (142, 217); *Picea glauca* (217);

Picea pungens (208, 217); *Tsuga heterophylla* (52, 53)

syn. *piceicola* (Cholodkovsky) 1896; *Lachnus*

ORIGINAL DESCRIPTION: Zool. Anz. 19:148 (32)

TYPE: unknown Bull. Brit. Mus. Nat. Hist. (Entomol.) 27(2):153 (43)

REFERENCES: 1 (b, k); 174 (fund., ap. viv., ovip., b, ld);

175 (fund., ap. viv., al. viv., ovip., ap. male, b, k, ld)

DISTRIBUTION: United States: CO, ID, IN, NY; Canada: NS

HOSTS: *Picea abies* (1, 175); *Picea glauca* (1, 153)

pinata Hottes 1955; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 68:199–202 (85)

TYPE: USNM (al. viv. original designation) Proc. Biol. Soc. Wash. 68:202 (85)

REFERENCES: 85 (ap. viv., al. viv., ovip, ap. male); 107 (b, k, ld)

DISTRIBUTION: United States: CO

HOSTS: *Pinus edulis* (85, 107)

pinea (Mordvilko) 1895; *Lachnus*

ORIGINAL DESCRIPTION: Zool. Anz. 18:100 (166)

TYPE: unknown Fla. Agr. Exp. Sta. Mono. Ser. 3:89 (182)

REFERENCES: 5 (ap. viv., b, k, ld); 10 (b, k, as *pini* (Linnaeus)); 17 (b, ld);

43 (ap. viv., al. viv., b, k, ld); 44 (k, ld, n); 69 (b); 166 (ap. viv., al. viv.);

175 (ap. viv., al. viv., ovip., al. male, b, k, ld);

182 (ap. viv., al. viv., ovip., al. male, b, k, ld, p); 184 (ap. viv., b, k, ld); 204 (ap. viv., k)

DISTRIBUTION: United States: DC, IA, IN, ME, MD, MI, MN, NB, NC, NJ, NY, OH, OR, PA, SC, UT, VA, WV, WI; Canada: AB, BC, MB, NB, ON, PE, PQ

HOSTS: *Pinus banksiana* (182, 185); *Pinus nigra* (43, 182); *Pinus resinosa* (182);

Pinus rigida (182); *Pinus strobus* (182); *Pinus sylvestris* (43, 182); *Pinus taeda* (149);

Pinus virginiana (69, 182)

syn. *inoptis* (Wilson) 1919; *Lachniella*

ORIGINAL DESCRIPTION: Can. Entomol. 51:18 (214)

TYPE: USNM Can. Entomol. 51:18 (214)

REFERENCES: 174 (ap. viv., al. viv., ld); 177 (ap. viv., al. viv.) 182 (n. syn.);

214 (ap. viv., al. viv.)

DISTRIBUTION: United States: CT, DC

HOSTS: *Pinus virginiana* (177, 214)

pini (Linnaeus) 1758; *Aphis*

ORIGINAL DESCRIPTION: Systemae Naturae Tom. 1:453 (161)

TYPE: none Bull. Brit. Mus. Nat. Hist. (Entomol.) 27(2):160 (43)

REFERENCES: 10 (misidentification of *pinea* (Mordvilko)); 27 (b); 43 (ap. viv., al. viv., b, k);

57 (n); 63 (ap. viv., ld); 78 (n); 124 (n); 143 (n); 163 (b); 175 (n); 177 (ap. viv., al. viv.);

209 (ovip., ld)

DISTRIBUTION: United States: CT, FL, IL, MN, MO, NC, NJ, UT

HOSTS: *Pinus nigra* (142); *Pinus sylvestris* (43, 63); *Pinus taeda* (163, 164)

pinicola (Kaltenbach) 1843; *Lachnus*

ORIGINAL DESCRIPTION: Mono. Fam. Pflanzenläuse 154–155 (129)

TYPE: unknown Bull. Brit. Mus. Nat. Hist. (Entomol.) 27(2):152 (43)

REFERENCES: 1 (b, k); 124 (n); 129 (ap. viv., al. viv.); 177 (ap. viv., al. viv.)

DISTRIBUTION: United States: CT, IL, IN, NJ; Canada: NB, NS

HOSTS: *Picea glauca* (1); *Picea rubens* (31)***piniradicis*** Bradley 1959; *Cinara*

ORIGINAL DESCRIPTION: Can. Entomol. 91:453–456 (23)

TYPE: CNC (al. viv. original designation) Can. Entomol. 91:456 (23)

REFERENCES: 15 (b); 17 (b, ld); 23 (fund., ap. viv., al. viv., ovip., ap. male, b, ld);

182 (ap. viv., al. viv., ovip., b, k, ld, p)

DISTRIBUTION: United States: MI; Canada: AB, MB, ON, SK

HOSTS: *Pinus banksiana* (15, 23)***pinivora*** (Wilson) 1919; *Lachniella*

ORIGINAL DESCRIPTION: Can. Entomol. 51:44 (215)

TYPE: USNM (al. viv. lectotype) Fla. Agr. Exp. Sta. Mono. Ser. 3:104 (182)

REFERENCES: 15 (b); 17 (b, ld); 104 (al. viv., ld); 105 (ap. viv., ld); 177 (al. viv.); 179 (b);

182 (ap. viv., al. viv., ovip., al. male, b, k, ld, p); 203 (ap. viv., al. viv., k)

DISTRIBUTION: United States: AL, CT, DC, DE, FL, GA, LA, MD, MI, MO, NC, NY, OK, PA, SC, TN, UT, VA; Canada: ON, SK

HOSTS: *Pinus banksiana* (15, 182); *Pinus clausa* (182); *Pinus elliottii* (182);*Pinus pungens* (182); *Pinus resinosa* (182); *Pinus rigida* (153, 182); *Pinus sylvestris* (182);*Pinus taeda* (179, 182); *Pinus virginiana* (105, 182)syn. ***osborni*** Tissot 1944; *Cinara*

ORIGINAL DESCRIPTION: Fla. Entomol. 27:45–48 (200)

TYPE: USNM (al. viv. original designation) Fla. Entomol. 27:47–48 (200)

REFERENCES: 200 (ap. viv., al. viv., ld); 201 (name preoccupied by *osborni* Knowlton)

DISTRIBUTION: United States: FL

HOSTS: *Pinus palustris* (200); *Pinus taeda* (200)syn. ***osborniana*** Tissot 1945; *Cinara*

ORIGINAL DESCRIPTION: Fla. Entomol. 27:45–48 (200)

TYPE: USNM (al. viv. original description) Fla. Entomol. 27:47–48 (200)

REFERENCES: 182 (n. syn.); 200 (ap. viv., al. viv., ld);

201 (replacement name for *osborni* Tissot)

DISTRIBUTION: United States: FL

HOSTS: *Pinus palustris* (200); *Pinus taeda* (200)***piñona*** Hottes 1953; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 66:153–154 (76)

TYPE: USNM (al. viv. original designation) Proc. Biol. Soc. Wash. 66:153–154 (76)

REFERENCES: 35 (b, k, ld); 76 (ap. viv., al. viv.); 81 (ovip., al. male)

DISTRIBUTION: United States: CA, CO

HOSTS: *Pinus edulis* (81, 107)***poketa*** Hottes 1956; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 69: 220–221 (90)

TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 69:221 (90)

REFERENCES: 35 (ovip., k, ld); 90 (ap. viv., ld)

DISTRIBUTION: United States: CA, AZ

HOSTS: *Pinus edulis* (90, 107)

ponderosae (Williams) 1910; *Lachnus*

ORIGINAL DESCRIPTION: Univ. Nebr. Contr. Entomol. 10:85–175 (210)

TYPE: USNM The Thomas Say Foundation 5:41 (175)

REFERENCES: 38 (ld, n); 59 (fund., ovip., ld); 63 (ap. viv., al. viv., b, k, ld); 128 (ld, n);

143 (n); 175 (fund., ap. viv., al. viv., ovip., al. male, b, k, ld); 196 (k, n);

204 (ap. viv., al. viv., b, k, p); 206 (b); 210 (ap. viv., al. viv., al. male)

DISTRIBUTION: United States: CA, CO, ID, NB, OR, UT; Canada: BC

HOSTS: *Pinus canariensis* (160); *Pinus douglasiana* (208); *Pinus greggii* (208);

Pinus jeffreyi (196, 206); *Pinus michoacana* (208); *Pinus nigra* (208); *Pinus occidentalis* (208);

Pinus ponderosa (59, 143); *Pinus ponderosa* var. *scopulorum* (63, 210); *Pinus quadrifolia* (208)

syn. ***onatei*** Hottes & Essig 1953; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 66:167–168 (118)

TYPE: UCB (al. viv. original designation) Proc. Biol. Soc. Wash. 66:168 (118)

REFERENCES: 45 (n. syn.); 118 (al. viv., ap. viv.)

DISTRIBUTION: United States: CA

HOSTS: *Pinus jeffreyi* (118)

pruinosa (Hartig) 1841; *Lachnus*

ORIGINAL DESCRIPTION: Z. Entomol. (Germar) 3:368 (68)

TYPE: none Bull. Brit. Mus. Nat. Hist. (Entomol.) 27(2):132 (43)

DISTRIBUTION: United States: UT

HOSTS: *Picea engelmannii* (142); *Picea pungens* (142)

syn. ***palmerae*** (Gillette) 1917; *Lachnus*

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 10:135 (58)

TYPE: USNM The Thomas Say Foundation 5:39 (175)

REFERENCES: 1 (b, n); 15 (b); 17 (b); 45 (n. syn.); 63 (ap. viv., al. viv., b, k, ld); 111 (k, ld);

124 (n); 129 (b, k); 175 (fund., ap. viv., al. viv., ovip., al. male, b, k, ld)

DISTRIBUTION: United States: CO, ID, IL, IN, NJ, PA; Canada: MB, NS, ON, PQ, SK

HOSTS: *Larix laricina* (1); *Picea abies* (180); *Picea englemanni* (63, 111); *Picea glauca* (1, 15);

Picea mariana (1, 15); *Picea pungens* (111, 175)

pseudoschwarzii Palmer 1936; *Cinara*

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 29:274–275 (172)

TYPE: USNM (al. viv. original designation) Ann. Entomol. Soc. Amer. 29:275 (172)

REFERENCES: 172 (fund., ap. viv., al. viv., ld); 173 (fund., ap. viv., al. viv., b, ld);

175 (fund., ap. viv., al. viv., b, k, ld)

DISTRIBUTION: United States: CO

HOSTS: *Pinus ponderosa* (172, 173)

pseudotaxifoliae Palmer 1952; *Cinara*

ORIGINAL DESCRIPTION: The Thomas Say Foundation 5:41–43 (175)

TYPE: USNM The Thomas Say Foundation 5:43 (175)

REFERENCES: 17 (b, ld); 114 (k, ld); 128 (b);

175 (fund., ap. viv., al. viv., ovip., al. male, b, k, ld);

204 (fund., ap. viv., al. viv., ovip., al. male, b, k, p)

DISTRIBUTION: United States: CA, CO, ID, OR, UT, WA; Canada: AB, BC
HOSTS: *Pseudotsuga menziesii* (53, 142); *Pseudotsuga menziesii* var. *glauca* (17)

pseudotsugae (Wilson) 1912; *Lachnus*

ORIGINAL DESCRIPTION: Can. Entomol. 44:302–303 (212)
TYPE: UMN (lectotype) Ann. Entomol. Soc. Amer. 75(1):76 (34)
REFERENCES: 17 (b, ld); 63 (ap. viv., al. viv., b, k, ld); 114 (k, ld);
171 (fund., ap. viv., al. viv., ovip., al. male, b, ld);
175 (fund., ap. viv., al. viv., ovip., al. male, b, k, ld);
204 (fund., ap. viv., al. viv., ovip., al. male, b, k, p); 212 (ap. viv., al. viv., ovip., al. male)
DISTRIBUTION: United States: AZ, CA, CO, OR, UT; Canada: BC
HOSTS: *Pseudotsuga menziesii* (63, 171); *Pseudotsuga menziesii* var. *glauca* (17)

puerca Hottes 1954; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 67:251–253 (82)
TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 67:252 (82)
REFERENCES: 80 (n); 83 (al. viv.); 107 (b, k, ld)
DISTRIBUTION: United States: AZ, CO
HOSTS: *Pinus edulis* (82, 83)

pulverulens (Gillette & Palmer) 1924; *Lachnus*

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 17:40–41 (59)
TYPE: USNM Ann. Entomol. Soc. Amer. 17:41 (59)
REFERENCES: 59 (ap. viv., al. viv., ovip., ld); 63 (ap. viv., al. viv., b, k, ld); 133 (n);
175 (ap. viv., al. viv., ovip., al. male, b, k, ld)
DISTRIBUTION: United States: CO, ID, UT
HOSTS: *Juniperus osteosperma* (175); *Juniperus scopulorum* (59, 175)

radicivora Voegtlin 1982; *Cinara*

ORIGINAL DESCRIPTION: Pan-Pacific Entomol. 58(3):196–201 (205)
TYPE: INHS (ap. viv. original designation) Pan-Pacific Entomol. 58(3):199 (205)
REFERENCES: 205 (ap. viv., al. viv., b, k, ld)
DISTRIBUTION: United States: CA, OR
HOSTS: *Abies concolor* (205)

rara Bradley 1956; *Cinara*

ORIGINAL DESCRIPTION: Can. Entomol. 88:708 (13)
TYPE: CNC (ovip. original designation) Can. Entomol. 88:708 (13)
REFERENCES: 13 (ovip., al. male, ld); 111 (n); 115 (n)
DISTRIBUTION: United States: AK; Canada: SK
HOSTS: *Picea mariana* (13, 111)

rigidae Hottes 1958; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 71:5–7 (94)
TYPE: USNM (al. viv. original designation) Proc. Biol. Soc. Wash. 71:7 (94)
REFERENCES: 94 (ap. viv., al. viv.); 182 (ap. viv., al. viv., b, k, ld)
DISTRIBUTION: United States: NH
HOSTS: *Pinus rigida* (94)

rubicunda (Wilson) 1915; *Lachnus*

ORIGINAL DESCRIPTION: Trans. Amer. Entomol. Soc. 41:105 (213)
TYPE: UMN Ann. Entomol. Soc. Amer. 75(1):76 (34)

REFERENCES: 10 (misidentification of *juniperi* (De Geer)); 213 (ap. viv., al. viv., ld)

DISTRIBUTION: United States: OR

HOSTS: *Juniperus occidentalis* (213)

russellae Pepper & Tissot 1973; *Cinara*

ORIGINAL DESCRIPTION: Fla. Agr. Exp. Sta. Mono. Ser. 3:110–117 (182)

TYPE: USNM (ap. viv. original designation) Fla. Agr. Exp. Sta. Mono. Ser. 3:116 (182)

REFERENCES: 182 (ap. viv., al. viv., ovip., al. male, b, k, ld, p)

DISTRIBUTION: United States: MI

HOSTS: *Pinus banksiana* (182)

rustica Hottes 1956; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 69:83–85 (88)

TYPE: USNM (ovip. original designation) Proc. Biol. Soc. Wash. 69:84 (88)

REFERENCES: 88 (ap. viv., ovip.); 90 (ap. viv., ovip., ld); 93 (al. viv., ld);

107 (ap. male, b, k, ld)

DISTRIBUTION: United States: AZ, CO

HOSTS: *Pinus edulis* (88, 93)

sabinae (Gillette & Palmer) 1924; see ***cupressi*** (Buckton) 1881

sabinianus (Swain) 1919; see ***arizonica*** (Wilson) 1919

saccharinipini Hottes 1958; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 71:157–159 (101)

TYPE: UCB (ap. viv. original designation) Proc. Biol. Soc. Wash. 71:159 (101)

REFERENCES: 101 (ap. viv., al. viv., ld); 204 (ap. viv., k)

DISTRIBUTION: United States: CA

HOSTS: *Pinus lambertiana* (101)

saskensis Bradley 1962; *Cinara*

ORIGINAL DESCRIPTION: Can. Entomol. 94:1181–1182 (18)

TYPE: CNC (al. viv. original designation) Can. Entomol. 94:1182 (18)

REFERENCES: 18 (al. viv., b, ld)

DISTRIBUTION: Canada: BC, MB, SK

HOSTS: *Picea engelmannii* (53); *Picea glauca* (18)

schuhi Hottes 1957; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 70:4–6 (92)

TYPE: USNM (al. viv. original designation) Proc. Biol. Soc. Wash. 70:6 (92)

REFERENCES: 92 (ap. viv., al. viv., ld); 108 (k, ld)

DISTRIBUTION: United States: OR

HOSTS: *Abies concolor* (92, 108)

schwarzii (Wilson) 1919; *Lachniella*

ORIGINAL DESCRIPTION: Can. Entomol. 51:46 (215)

TYPE: USNM Can. Entomol. 51:46 (215)

REFERENCES: 57 (n); 63 (ap. viv., al. viv., b, k, ld); 121 (n); 170 (ap. viv., al. viv., b, ld, p);

171 (fund., ap. viv., al. viv., ovip., al. male, b, ld);

175 (fund., ap. viv., al. viv., ovip., al. male, b, k, ld);

204 (ap. viv., al. viv., ovip., al. male, b, k, p); 215 (ap. viv., al. viv.)

DISTRIBUTION: United States: AZ, CA, CO, DC, IN, MD, OR, UT; Mexico: DF
 HOSTS: *Pinus cooperi* (170); *Pinus jeffreyi* (204); *Pinus ponderosa* (204, 215);
Pinus ponderosa var. *scopulorum* (57, 63); *Pinus virginiana* (154)

sclerosa Richards 1956; *Cinara*

ORIGINAL DESCRIPTION: Can. Entomol. 88:203–204 (186)
 TYPE: CNC (ap. viv. original designation) Can. Entomol. 88:204 (186)
 REFERENCES: 186 (ap. viv., ld)
 DISTRIBUTION: Canada: BC
 HOSTS: *Pinus contorta* (186)

serrai Hottes & Essig 1953; see *arizonica* (Wilson) 1919

setulosa Hottes & Essig 1955; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 68:61–63 (123)
 TYPE: UCB (ap. viv. original designation) Proc. Biol. Soc. Wash. 68:62–63 (123)
 REFERENCES: 93 (ovip., al. male, ld); 108 (k, ld); 122 (ap. viv.); 123 (ap. viv.)
 DISTRIBUTION: United States: OR
 HOSTS: *Abies magnifica* (93, 122)

sibiricae (Gillette & Palmer) 1924; *Lachnus*

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 17:12–14 (59)
 TYPE: USNM Ann. Entomol. Soc. Amer. 17:14 (59)
 REFERENCES: 59 (fund., ap. viv., al. viv., ovip., ap. male, ld); 63 (ap. viv., al. viv., b, k, ld);
 174 (n); 175 (fund., ap. viv., al. viv., ovip., ap. male, b, k, ld)
 DISTRIBUTION: United States: CA, CO, DE, IN, OR, UT, WA
 HOSTS: *Juniperus communis* (59, 63); *Juniperus scopulorum* (208)

similis (Gillette & Palmer) 1924; see *medispinosa* (Gillette & Palmer) 1929

sitchensis Hottes 1958; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 71:61–62 (95)
 TYPE: UCB (ap. viv. original designation) Proc. Biol. Soc. Wash. 71:62 (95)
 REFERENCES: 95 (ap. viv., ld); 111 (k, ld)
 DISTRIBUTION: CA
 HOSTS: *Picea sitchensis* (95, 111)

solitaria (Gillette & Palmer) 1924; *Lachnus*

ORIGINAL DISTRIBUTION: Ann. Entomol. Soc. Amer. 17:17–19 (59)
 TYPE: USNM Ann. Entomol. Soc. Amer. 17:19 (59)
 REFERENCES: 59 (fund., ap. viv., al. viv., ovip., ld); 63 (ap. viv., al. viv., b, k, ld);
 133 (ap. viv.); 175 (fund., ap. viv., al. viv., ovip., b, k, ld)
 DISTRIBUTION: United States: CO, UT
 HOSTS: *Pinus ponderosa* (59, 133); *Pinus ponderosa* var. *scopulorum* (63, 175)

sonata Hottes 1955; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 68:202–203 (85)
 TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 68:203 (85)
 REFERENCES: 85 (ap. viv.); 93 (al. viv., ovip., al. male, ld); 108 (k, ld)
 DISTRIBUTION: United States: ID, OR, WA; Canada: BC
 HOSTS: *Abies concolor* (85); *Abies grandis* (85, 93)

soplada Hottes 1956; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 69:65–67 (86)

TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 69:67 (86)

REFERENCES: 86 (ap. viv.); 94 (al. male, ld); 111 (k, ld)

DISTRIBUTION: United States: ME

HOSTS: *Picea* sp. (86, 94)

spiculosa Bradley 1956; *Cinara*

ORIGINAL DESCRIPTION: Can. Entomol. 88:492–494 (12)

TYPE: CNC (ap. viv. original designation) Can. Entomol. 88:492–494 (12)

REFERENCES: 12 (ap. viv., al. viv., ld); 15 (b); 17 (b, ld)

DISTRIBUTION: Canada: AB, MB, NB, NS, ON, SK

HOSTS: *Larix laricina* (12, 15)

splendens (Gillette & Palmer) 1924; *Lachnus*

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 17:14–17 (59)

TYPE: USNM Ann. Entomol. Soc. Amer. 17:17 (59)

REFERENCES: 17 (b); 59 (fund., ap. viv., al. viv., ovip., al. male, ld);

63 (ap. viv., al. viv., b, k, ld); 114 (k, ld);

175 (fund., ap. viv., al. viv., ovip., al. male, b, k, ld)

DISTRIBUTION: United States: CO, UT; Canada: BC

HOSTS: *Pseudotsuga menziesii* (59, 63)

strobi (Fitch) 1851; *Eriosoma*

ORIGINAL DESCRIPTION: Ann. Rep. N.Y. State Cab. Nat. Hist. 4:65 (49)

TYPE: USNM (al. viv.) Fla. Agr. Exp. Sta. Mono. Ser. 3:122 (182)

REFERENCES: 1 (ap. viv., b, k); 10 (b, k); 15 (b); 27 (b); 49 (ap. viv., al. viv., b);

50 (ap. viv., al. viv., b); 124 (n); 165 (b); 177 (ap. viv., al. viv.);

182 (ap. viv., al. viv., ovip., al. male, b, k, ld, p); 183 (b); 187 (b); 197 (ap. viv., al. viv., b);

209 (ovip., al. male, b, ld)

DISTRIBUTION: United States: AR, CT, DC, DE, IL, IN, MA, MD, ME, MI, MO, NC, NH, NJ, NY, OH, PA, SC, VA, WI; Canada: NB, NS, ON, PQ

HOSTS: *Pinus banksiana* (162); *Pinus resinosa* (162); *Pinus strobus* (10, 15)

subterranea Bradley 1956; *Cinara*

ORIGINAL DESCRIPTION: Can. Entomol. 88:494 (12)

TYPE: CNC (ovip. original designation) Can. Entomol. 88:494 (12)

REFERENCES: 12 (ovip., ld); 17 (b)

DISTRIBUTION: Canada: AB, MB

HOSTS: *Larix laricina* (12, 17)

taedae Tissot 1932; *Cinara*

ORIGINAL DESCRIPTION: Fla. Entomol. 16:5–7 (198)

TYPE: USNM (al. viv. original designation) Fla. Entomol. 16:6 (198)

REFERENCES: 69 (b); 182 (ap. viv., al. viv., ovip., al. male, b, k, ld, p);

198 (ap. viv., al. viv., ld); 199 (k, ld)

DISTRIBUTION: United States: FL, MD, NC, PA, VA

HOSTS: *Pinus clausa* (182); *Pinus elliottii* (182); *Pinus glabra* (182); *Pinus pungens* (182);

Pinus rigida (180, 182); *Pinus serotina* (182); *Pinus taeda* (198, 199); *Pinus virginiana* (69, 182)

tanneri (Knowlton) 1930; *Lachnus*

ORIGINAL DESCRIPTION: Can. Entomol. 62:155 (133)

TYPE: USNM [?]

REFERENCES: 107 (b, k, ld); 133 (ap. viv., al. viv., ld); 175 (ap. viv., b)

DISTRIBUTION: United States: UT

HOSTS: *Pinus edulis* (107); *Pinus monophylla* (107, 133)**taxifoliae** (Swain) 1918; *Lachnus*

ORIGINAL DESCRIPTION: Trans. Am. Entomol. Soc. 44:11–14 (195)

TYPE: UCB (ap. viv. lectotype) Proc. Biol. Soc. Wash. 74:114 (114)

REFERENCES: 63 (ap. viv., al. viv., b, k, ld); 120 (ap. viv., al. viv., ld); 143 (n);

171 (fund., ap. viv., al. viv., ovip., al. male, b, ld); 195 (ap. viv., al. viv., ld); 196 (k, n)

DISTRIBUTION: United States: AZ, CA, CO, ID, OR, UT

HOSTS: *Pseudotsuga menziesii* (143, 171)**terminalis** (Gillette & Palmer) 1924; *Lachnus*

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 17:19–21 (59)

TYPE: USNM (lectotype) Proc. Biol. Soc. Wash. 73:211 (107)

REFERENCES: 59 (fund., ap. viv., al. viv., ovip., al. male, ld);

63 (ap. viv., al. viv., b, k, ld); 107 (k, ld); 170 (ap. viv., al. viv., b, ld, p);

175 (fund., ap. viv., al. viv., ovip., al. male, b, k, ld); 204 (ap. viv., k)

DISTRIBUTION: United States: CO, UT; Mexico: DF, MEX, MICH

HOSTS: *Pinus cembroides* (170); *Pinus edulis* (59, 107); *Pinus leiophylla* (170);*Pinus michoacana* (170); *Pinus patula* (170); *Pinus pseudostrobus* (170)**thatcheri** Knowlton & Smith 1938; *Cinara*

ORIGINAL DESCRIPTION: Entomol. News 49:66 (143)

TYPE: USNM Entomol. News 49:66 (143)

REFERENCES: 1 (b, k); 143 (al. viv., ap. viv., ld); 175 (n)

DISTRIBUTION: United States: ID, IN, UT; Canada: BC, NS

HOSTS: *Picea glauca* (1); *Pinus ponderosa* (143, 175)**tonaluca** Hottes & Wehrle 1951; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 64:45–46 (126)

TYPE: USNM (al. viv. original designation) Proc. Biol. Soc. Wash. 64:46 (126)

REFERENCES: 74 (n); 126 (ap. viv., al. viv.)

DISTRIBUTION: United States: AZ

HOSTS: *Juniperus monosperma* (126)**tsugae** Bradley 1960; *Cinara*

ORIGINAL DESCRIPTION: Can. Entomol. 92:605–608 (16)

TYPE: CNC (al. viv. original designation) Can. Entomol. 92:607 (16)

REFERENCES: 16 (fund., al. viv., ap. viv., ovip., b, ld); 17 (b, ld); 114 (k, ld)

DISTRIBUTION: United States: OR; Canada: BC

HOSTS: *Tsuga heterophylla* (16, 114)**tujafilina** (Del Guercio) 1909; *Lachniella*

ORIGINAL DESCRIPTION: Redia 5:311–312 (40)

TYPE: unknown Bull. Brit. Mus. Nat. Hist. (Entomol.) 27(2):166 (43)

REFERENCES: 5 (ap. viv., b, k, ld); 29 (b, p); 40 (ap. viv.); 43 (ap. viv., al. viv., b, k, ld); 165 (b); 196 (k, n); 199 (b, k, ld, n); 200 (n); 203 (al. viv., ap. viv., k)

DISTRIBUTION: United States: CA, DE, FL, ID, KS, LA, MD, MI, MO, NJ, OK, OR, PA, TX, UT, VA

HOSTS: *Callitris columellaris* (208); *Callitris drummondii* (208); *Callitris gracilis* (208);

Callitris morrisonii (208); *Callitris murrayensis* (208); *Callitris propinqua* (208);

Callitris rhomboidea (208); *Chamaecyparis lawsoniana* (208);

Cupressus goveniana var. *pygmaea* (208); *Juniperus* sp. (43); *Pinus coulteri* (208);

Thuja occidentalis (43, 196); *Thuja orientalis* (152, 203); *Widdringtonia juniperoides* (208)

syn. *winonkae* Hottes 1934; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 47:1–2 (72)

TYPE: USNM (al. viv. original designation) Proc. Biol. Soc. Wash. 47:2 (72)

REFERENCES: 24 (ap. viv., al. viv., b); 72 (al. viv.); 76 (n. syn.);

175 (ap. viv., al. viv., b, k, ld)

DISTRIBUTION: United States: DE, ID, IN, LA, UT

HOSTS: *Thuja orientalis* (24)

tunicula Hottes 1958; see *gracilis* (Wilson) 1919

utahensis Knowlton & Smith 1938; *Cinara*

ORIGINAL DESCRIPTION: Entomol. News 49:66–68 (143)

TYPE: USNM Entomol. News 49:66 (143)

REFERENCES: 143 (ap. viv., al. viv., ld)

DISTRIBUTION: United States: UT

HOSTS: *Abies lasiocarpa* (143)

vagabunda Hottes & Essig 1953; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 66:206–208 (119)

TYPE: UCB (al. viv. original designation) Proc. Biol. Soc. Wash. 66:207 (119)

REFERENCES: 114 (ap. viv., k, ld); 119 (al. viv.)

DISTRIBUTION: United States: AZ, MN

HOSTS: *Pinus* sp. (119); *Pseudotsuga menziesii* (114)

vanduzeei (Swain) 1919; see *confinis* (Koch) 1856

vandykei (Wilson) 1919; *Lachniella*

ORIGINAL DESCRIPTION: Can. Entomol. 51:19–20 (214)

TYPE: UMN Ann. Entomol. Soc. Amer. 75(1):77 (34)

REFERENCES: 17 (b, ld); 63 (ap. viv., al. viv., b, k, ld); 111 (k, ld); 115 (n);

171 (fund., ap. viv., al. viv., ovip., ap. male, b, ld);

175 (fund., ap. viv., al. viv., ovip., ap. male, b, k, ld); 214 (ap. viv., al. viv.)

DISTRIBUTION: United States: AK, CO, WA; Canada: BC, NB, NF, NS, ON

HOSTS: *Picea engelmannii* (63, 111); *Picea glauca* (115); *Picea sitchensis* (17, 53)

villosa (Gillette & Palmer) 1931; *Lachnus*

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 24:847 (63)

TYPE: USNM Ann. Entomol. Soc. Amer. 24:847 (63)

REFERENCES: 17 (b); 63 (k, n); 84 (n); 175 (b, k, ld, n)

DISTRIBUTION: United States: CO, ID, UT; Canada: AB, BC

HOSTS: *Pinus flexilis* (63, 175)

ssp. *curtivillosa* Hottes 1955; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 68:102 (84)

TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 68:102 (84)

REFERENCES: 84 (ap. viv.)

DISTRIBUTION: United States: AZ

HOSTS: *Pinus flexilis* (84)ssp. *parvavillosa* Hottes 1955; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 68:101 (84)

TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 68:101 (84)

REFERENCES: 84 (ap. viv., al. viv.)

DISTRIBUTION: United States: AZ

HOSTS: *Pinus flexilis* (84)*wacasassae* Tissot 1944; see *fresai* Blanchard 1939*wahhaka* Hottes 1951; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 64:145 (73)

TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 64:145 (73)

REFERENCES: 73 (ap. viv., ovip.); 75 (al. viv.); 77 (ap. male)

DISTRIBUTION: United States: CO

HOSTS: *Juniperus osteosperma* (73)*wahluca* Hottes 1952; *Cinara*

ORIGINAL DESCRIPTION: Great Basin Nat. 12:59–61 (74)

TYPE: USNM (ap. viv. original designation) Great Basin Nat. 12:61 (74)

REFERENCES: 74 (ap. viv., ovip., ap. male); 76 (ap. viv.)

DISTRIBUTION: United States: CO

HOSTS: *Juniperus scopulorum* (74, 76)*wahsugae* Hottes 1960; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 73:197–198 (106)

TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 73:197 (106)

REFERENCES: 106 (ap. viv., ovip., al. male, ld); 114 (k, ld)

DISTRIBUTION: United States: OR, WA

HOSTS: *Tsuga mertensiana* (114)*wahtolca* Hottes 1953; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 66:155–157 (76)

TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 66:157 (76)

REFERENCES: 76 (ap. viv., al. viv.); 81 (ovip.); 89 (al. male); 90 (al. male, ld); 107 (b, k, ld); 204 (ap. viv., k)

DISTRIBUTION: United States: AZ, CA, CO, NV

HOSTS: *Pinus cembroides* (76); *Pinus edulis* (81, 107); *Pinus monophylla* (107)ssp. *curtiwahtolca* Hottes 1955; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 68:101–102 (84)

TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 68:102 (84)

REFERENCES: 84 (ap. viv.)

DISTRIBUTION: United States: AZ, UT

HOSTS: *Pinus edulis* (84); *Pinus monophylla* (142)

wanepae Hottes 1933; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 46:5 (71)

TYPE: USNM (al. viv. original designation) Proc. Biol. Soc. Wash. 46:5 (71)

REFERENCES: 71 (al. viv., ovip.); 173 (n)

DISTRIBUTION: United States: CO

HOSTS: *Picea pungens* (71, 173)***watsoni*** Tissot 1939; *Cinara*

ORIGINAL DESCRIPTION: Fla. Entomol. 22:43–47 (199)

TYPE: USNM (al. viv. original designation) Fla. Entomol. 22:46 (199)

REFERENCES: 28 (b); 48 (b); 179 (b); 182 (ap. viv., al. viv., ovip., al. male, b, k, ld, p); 199 (ap. viv., al. viv., b, k, ld); 200 (n); 203 (ap. viv., al. viv., k)

DISTRIBUTION: United States: AR, DE, FL, GA, LA, MD, MI, MS, NC, NJ, NY, OH, OK, PA, SC, VA, WV

HOSTS: *Pinus banksiana* (182); *Pinus clausa* (182); *Pinus echinata* (28, 182);*Pinus elliotii* (182, 199); *Pinus glabra* (182, 199); *Pinus pungens* (182); *Pinus resinosa* (180);*Pinus rigida* (155, 182); *Pinus serotina* (182); *Pinus sylvestris* (180); *Pinus taeda* (199, 200);*Pinus virginiana* (28, 199)***westi*** Tissot & Pepper 1967; *Cinara*

ORIGINAL DESCRIPTION: Fla. Entomol. 50:7–10 (202)

TYPE: USNM (al. viv.) Fla. Entomol. 50:10 (202)

REFERENCES: 182 (ap. viv., al. viv., b, k, ld, p); 202 (ap. viv., al. viv., b, ld)

DISTRIBUTION: United States: FL, SC

HOSTS: *Pinus taeda* (182, 202)***winonkae*** Hottes 1934; see *tujafilina* (Del Guercio) 1909***yukona*** Hottes 1964; *Cinara*

ORIGINAL DESCRIPTION: Entomol. Ber. 24:53–54 (115)

TYPE: USNM (al. viv. original designation) Entomol. Ber. 24:54 (115)

REFERENCES: 115 (al. viv., ld)

DISTRIBUTION: United States: AK

HOSTS: *Picea glauca* (115)***zoarcbursara*** Knowlton 1935; *Cinara*

ORIGINAL DESCRIPTION: Pan-Pac. Entomol. 11:139–140 (136)

TYPE: USNM [?] (only ap. viv. in original description)

REFERENCES: 136 (ap. viv.)

DISTRIBUTION: United States: UT

HOSTS: *Abies concolor* (136, 142)

Bibliography

Many papers in the literature on aphids are made up almost entirely of lists of species found in particular geographical locations. These papers vary from simple lists of species to lists that include species, hosts, collection dates, and collectors. Although such lists do not contain enough information to warrant including them under the reference heading in the species list, information in them on hosts and localities has been included under the host and distribution headings. In the interest of completeness, however, we have included these citations here preceded by asterisks. Following each such citation is a list of the species mentioned in the paper.

1. Archibald, K.D. 1955–1956 [actual date of publication 1958]. Forest Aphidae of Nova Scotia. *Proceedings of the Nova Scotian Institute of Science* 24 (Part 2):1–254.
2. Ashmead, W.H. 1881. On a new species of aphid affecting the pine. *Canadian Entomologist* 13:67–68.
- *3. Baker, W.L. 1972. Eastern forest insects. United States Department of Agriculture Forest Service Miscellaneous Publication 1175. 642 p. Species: *abietis*, *atlantica*, *canadensis*, *carolina*, *juniperivora*, *pini*, *sabinae*, *strobi*, *taedae*, *tujaefilina*, *watsoni*.
- *4. Beal, J.A. 1952. Forest insects of the southeast: with special reference to species occurring in the piedmont plateau of North Carolina. Duke University School of Forestry Bulletin 14:1–168. Species: *carolina*, *pini*, *strobi*, *taedae*.
5. Binazzi, A. 1978. Contributi alla conoscenza degli Afidi delle Conifere. I. Le specie dei generi *Cinara* Curt., *Schizolachnus* Mordv., *Cedrobium* Remaud. ed *Eulachnus* D. Gu. presenti in Italia (Homoptera: Aphidoidea Lachnidae). *Redia* 61:291–400.
6. Blanchard, E.E. 1939. Estudio sistemático de los Afidoideos argentinos. *Physis* 17:857–1003.
7. Boudreaux, H.B. 1948. New species of Louisiana Aphididae, and notes on *Sanbornia juniperi* Pergande. *Florida Entomologist* 31:96–105.
- *8. Boudreaux, H.B. 1951. The insect family Aphididae in Louisiana. *Proceedings of the Louisiana Academy of Sciences* 14:14–22. Species: *carolina*, *juniperivora*, *longispinosa*, *louisianensis*, *melaina*, *osborniana*, *tujaefilina*, *watsoni*.
9. Bradley, G.A. 1950. Notes on the conifer aphids, genus *Cinara*. Dominion [Canadian] Department of Agriculture, Science Service, Division of Entomology, Forest Insect Investigations Bi-monthly Progress Report 6(3):2.
10. Bradley, G.A. 1951. A field key to the species of *Cinara* (Homoptera: Aphididae) of Canada east of the Rockies. *Canadian Entomologist* 83:333–335.
11. Bradley, G.A. 1953. A new species of *Cinara* (Homoptera: Aphididae) from Saskatchewan. *Canadian Entomologist* 85:431–432.
12. Bradley, G.A. 1956. Three new species of the genus *Cinara* Curtis (Homoptera: Aphididae) from *Larix* spp. *Canadian Entomologist* 88:492–495.
13. Bradley, G.A. 1956. Two new species of the genus *Cinara* Curtis (Homoptera: Aphididae) from *Picea mariana* (Mill.) B.S.P. *Canadian Entomologist* 88:706–708.
- *14. Bradley, G.A. 1957. Aphids of the genus *Cinara* Curtis in Canada. Canada Department of Agriculture, Forest Biology Division Bi-monthly Progress Report 13(5):1. Species: *braggii*, *ferrisi*, *occidentalis*, *oregonensis*, *pinivora*, *sabinae*, *vandykei*.

15. Bradley, A.G. 1959. Feeding sites of aphids of the genus *Cinara* Curtis (Homoptera: Aphididae) in northwestern Ontario. *Canadian Entomologist* 91:670–671.
16. Bradley, G.A. 1960. A new species of the genus *Cinara* Curtis (Homoptera: Aphididae) from *Tsuga heterophylla* (Raf.) Sarg. *Canadian Entomologist* 92:605–608.
17. Bradley, G.A. 1961. A study of the systematics and biology of aphids of the genus *Cinara*, Curtis, in Canada. Ph.D. Dissertation. McGill University, Montreal, Canada. 189 p.
18. Bradley, G.A. 1962. Three new species of *Cinara* Curtis (Homoptera: Aphididae) from central Canada. *Canadian Entomologist* 94:1175–1182.
19. Bradley, G.A. 1963. Two new species of *Cinara* Curtis (Homoptera: Aphididae) from *Juniperus horizontalis* Moench. *Canadian Entomologist* 95:287–291.
20. Bradley, G.A. 1964. Studies of forest aphids. Canada Department of Forestry, Forest Entomology and Pathology Branch, Annual Report Year Ending March 31, 1964 (p. 98).
21. Bradley, G.A. 1965. A new species of *Cupressobium* (Homoptera: Lachnidae) from Hawaii. *Canadian Entomologist* 97:668–670.
22. Bradley, G.A., and J.D. Hinks. 1968. Ants, aphids, and jack pine in Manitoba. *Canadian Entomologist* 100:40–50.
23. Bradley, G.A., and D.C. Wighton. 1959. Description and life history of a new species of *Cinara* (Homoptera: Aphididae) from *Pinus banksiana* Lamb. *Canadian Entomologist* 91:453–456.
24. Bray, D.F. 1953. Life history and control of *Cinara winonkae*. *Journal of Economic Entomology* 46(1):103–107.
- *25. Brimley, C.S. 1938. The insects of North Carolina, being a list of the insects of North Carolina and their close relatives. North Carolina Department of Agriculture, Division of Entomology, Raleigh. 560 p. Species: *atlanticus*, *pinicola*, *strobi* (p. 104).
- *26. Britton, W.E. 1920. Check-list of the insects of Connecticut. *Bulletin of the Connecticut State Geological and Natural History Survey* 31:1–397. Species: *pinicola*, *strobi* (p. 57).
27. Bromley, S.W. 1939. Aphids of coniferous trees. Bartlett Tree Research Laboratories Bulletin 3:36–39.
28. Brooks, H.L., and L.O. Warren. 1964. Biology of a pine bark aphid, *Cinara watsoni*, and its response to temperature. *Journal of the Kansas Entomological Society* 37(4):310–316.
29. Brown, L.R., and C.O. Eads. 1967. Insects affecting ornamental conifers in southern California. *Bulletin of the California Agricultural Experiment Station* 834:1–72.
30. Buckton, G.B. 1881. Monograph of the British aphides. Vol. 3. Ray Society, London. 142 p.
- *31. Burnham, J.C. 1938. A contribution to a list of the Aphididae of the maritime provinces of Canada. *Canadian Entomologist* 70:180–188. Species: *brevispinosa*, *pinicola*.
32. Cholodkovsky, N.A. 1896. Zur Kenntnis der auf Fichte (*Picea excelsa* Lk.) lebenden *Lachnus*-Arten. *Zoologischer Anzeiger* 19:145–150.
33. Cholodkovsky, N.A. 1899. Aphidologische Mitteilungen. 7. Über einige neue oder wenig bekannte *Lachnus*-Arten. *Zoologischer Anzeiger* 22:468–477.

34. Cook, E.F. 1982. Types of the Aphididae in the University of Minnesota collection, with special reference to the species described by O.W. Oestlund and H.F. Wilson. *Annals of the Entomological Society of America* 75(1):71–77.
35. Davidson, W.M. 1909. Notes on Aphididae collected in the vicinity of Stanford University. *Journal of Economic Entomology* 2:299–305.
36. Davidson, W.M. 1910. Further notes on the Aphididae collected in the vicinity of Stanford University. *Journal of Economic Entomology* 3:372–381.
- *37. Davidson, W.M. 1914. Plant-louse notes from California. *Journal of Economic Entomology* 7:127–136. Species: *tujafilina*, *ponderosae*.
38. Davis, J.J. 1911. Williams' "The Aphididae of Nebraska"; a critical review. *University Studies of the University of Nebraska* 11:253–291; also pagged as 1–39.
39. De Geer, C. 1773. Second mémoire. Des pucerons. Mémoires pour servir à l'histoire des insectes. Vol. 3. Hesselberg, Stockholm (p. 19–129).
40. Del Guercio, G. 1909. Contribuzione alla conoscenza dei Lacnidi Italiani. Morphologia, sistematica, biologia generale e loro importanza economica. *Redia* 5:173–359.
- *41. Drews, E.A. 1939. A contribution to the knowledge of the Aphididae of Nevada. *Pan-Pacific Entomologist* 15(4):175–178. Species: *edulis*.
- *42. Drews, E.A. 1941. Aphididae of Nevada with a new genus and species. *Pan-Pacific Entomologist* 17(2):59–61. Species: *engelmanniensis*.
43. Eastop, V.F. 1972. A taxonomic review of the species of *Cinara* Curtis occurring in Britain (Hemiptera: Aphididae). *Bulletin of the British Museum of Natural History (Entomology)* 27(2):101–186.
44. Eastop, V.F. 1976. A review of *Cinara* subgenus *Cinarella* (Hemiptera: Aphididae). *Bulletin of the British Museum of Natural History (Entomology)* 35(1):1–23.
45. Eastop, V.F., and D. Hille Ris Lambers. 1976. Survey of the world's aphids. Dr. W. Junk, The Hague. 573 p.
46. Essig, E.O. 1911. Aphididae of southern California. VII. *Pomona College Journal of Entomology and Zoology* 3(3):523–557.
47. Essig, E.O. 1915. Aphididae of California. XI. *Pomona College Journal of Entomology and Zoology* 7:180–200.
48. Fedde, G.H. 1967. Comparative analyses of systematic procedures and biological characteristics relating to pine aphids of the genus *Cinara* of western South Carolina. Ph.D. Dissertation. Clemson University, Clemson, South Carolina. 152 p.
49. Fitch, A. 1851. Catalogue with references and descriptions of the insects collected and arranged for the State Cabinet of Natural History. Fourth Annual Report of the New York State Cabinet of Natural History. Family Aphidae (p. 65–69).
50. Fitch, A. 1857 [actual date of publication 1858]. Fourth report on the noxious and other insects of the State of New York. *Transactions of the New York State Agricultural Society* 17. *Cinara* spp. (p. 736–737, 752–753).
- *51. Forbes, A.R. 1978. The aphids (Homoptera: Aphididae) of British Columbia. 6. Further additions. *Journal of the Entomological Society of British Columbia* 75:47–52. Species: *curvipes*, *foracula*, *juniperi*.

- *52. Forbes, A.R., and C.K. Chan. 1976. The aphids (Homoptera: Aphididae) of British Columbia. 4. Further additions and corrections. *Journal of the Entomological Society of British Columbia* 73:57–63. Species: *occidentalis*, *pilicornis*, *pinea*, *psuedotaxifoliae*.
- *53. Forbes, A.R., and C.K. Chan. 1978. The aphids (Homoptera: Aphididae) of British Columbia. 7. A revised host plant catalogue. *Journal of the Entomological Society of British Columbia* 75:53–67. Species: *arizonica*, *braggii*, *brevispinosa*, *coloradensis*, *confinis*, *costata*, *curvipes*, *ferrisi*, *foracula*, *hottesi*, *inscripta*, *juniperi*, *kuchea*, *laricifoliae*, *medispinosa*, *murrayanae*, *nigripes*, *obscura*, *occidentalis*, *oregoni*, *pergandei*, *pilicornis*, *pinea*, *ponderosae*, *pseudotaxifoliae*, *pseudotsugae*, *saskensis*, *sonata*, *splendens*, *thatcheri*, *tsugae*, *vandykei*.
- *54. Forbes, A.R., B.D. Frazer, and C.K. Chan. 1974. The aphids (Homoptera: Aphididae) of British Columbia. 3. Additions and corrections. *Journal of the Entomological Society of British Columbia* 71:43–49. Species: *abieticola*, *arizonica*, *braggii*, *brevispinosa*, *coloradensis*, *curvipes*, *ferrisi*, *foracula*, *hottesi*, *inscripta*, *kuchea*, *laricifoliae*, *medispinosa*, *murrayanae*, *nigripes*, *obscura*, *occidentalis*, *oregoni*, *pergandei*, *ponderosae*, *pseudotaxifoliae*, *pseudotsugae*, *sabinae*, *saskensis*, *splendens*, *sonata*, *thatcheri*, *tsugae*, *vandykei*.
- *55. Forbes, A.R., B.D. Frazer, and H.R. MacCarthy. 1973. The aphids (Homoptera: Aphididae) of British Columbia. 1. A basic taxonomic list. *Journal of the Entomological Society of British Columbia* 70:43–57. Species: *abieticola*, *braggii*, *brevispinosa*, *coloradensis*, *costata*, *curvipes*, *foracula*, *medispinosa*, *murrayanae*, *occidentalis*, *pergandei*, *pinea*, *pseudotaxifoliae*, *splendens*.
- *56. Furniss, R.L., and V.M. Carolin. 1977. Western forest insects. United States Department of Agriculture Forest Service Miscellaneous Publication 1339. 654 p. Species: *coloradensis*, *foracula*, *laricifoliae*, *occidentalis*, *oregonensis*, *pergandei*, *ponderosae*, *sabinae*, *tsugae* (p. 95–96).
- 57. Gillette, C.P., and C.F. Baker. 1895. A preliminary list of the Hemiptera of Colorado. *Bulletin of the Colorado State University Agricultural Experiment Station* 31:1–137.
- 58. Gillette, C.P. 1917. Some Colorado species of the genus *Lachnus*. *Annals of the Entomological Society of America* 10:133–144.
- 59. Gillette, C.P., and M.A. Palmer. 1924. New Colorado Lachnini. *Annals of the Entomological Society of America* 17:1–44.
- 60. Gillette, C.P., and M.A. Palmer. 1925. Two new species of the genus *Lachnus*. *Annals of the Entomological Society of America* 18:526–530.
- 61. Gillette, C.P., and M.A. Palmer. 1929. New Colorado Aphididae. *Annals of the Entomological Society of America* 22:1–32.
- 62. Gillette, C.P., and M.A. Palmer. 1930. Three new aphids from Colorado. *Annals of the Entomological Society of America* 23:543–551.
- 63. Gillette, C.P., and M.A. Palmer. 1931. The Aphidae of Colorado. Part 1. *Annals of the Entomological Society of America* 24:827–934.
- *64. Gittins, A.R., G.W. Bishop, G.F. Knowlton, and E.J. Parker. 1976. An annotated list of the aphids of Idaho (Homoptera: Aphidae). *Research Bulletin of the Idaho Agricultural Experiment Station* 95:1–47. Species: *apini*, *brevispinosa*, *burrilli* (*tourvilli*), *coloradensis*, *curvipes*, *ferrisi*, *foracula*, *hottesi*, *idahoensis*, *kiusa*, *medispinosa*, *murrayanae*, *occidentalis*, *oregonensis*, *palmerae*, *piceicola*, *pilicornis*, *ponderosae*, *pseudotaxifoliae*, *pulverulens*, *sabinae*, *taxifoliae*, *thatcheri*, *tujafilina*, *villosa*, *winonae*.

- *65. Glendenning, R. 1925. Additions to the list of Aphididae of British Columbia. Proceedings of the Entomological Society of British Columbia 22:36–38. Species: *curvipes*.
- *66. Glendenning, R. 1929. Further additions to the list of aphids of British Columbia. Proceedings of the Entomological Society of British Columbia 26:54–57. Species: *juniperi*, *occidentalis*, *pseudotsugae*.
- 67. Hartig, T. 1839. Jahresberichte über die Fortschritte der Forstwissenschaft und forstlichen Naturkunde im Jahre 1836 und 1837. Entomologische Notizen 1(4): 640–646.
- 68. Hartig, T. 1841. Versuch einer Eintheilung der Pflanzenläuse (Phytophthires Burm.) nach der Flügelbildung. Zeitschrift für die Entomologie (Germar) 3:359–376.
- 69. Hoffmann, C.H. 1945. An unusual outbreak of aphids on pine. Journal of Economic Entomology 38(3):375–377.
- 70. Hottes, F.C. 1930. The name *Cinara* versus the name *Lachnus*. Proceedings of the Biological Society of Washington 43:185–187.
- 71. Hottes, F.C. 1933. Descriptions of Aphidae from western Colorado. Proceedings of the Biological Society of Washington 46:1–23.
- 72. Hottes, F.C. 1934. Aphid descriptions and notes. Proceedings of the Biological Society of Washington 47:1–8.
- 73. Hottes, F.C. 1951. A new juniper aphid from western Colorado. Proceedings of the Biological Society of Washington 64:145–146.
- 74. Hottes, F.C. 1952. Two new species of *Lachnini* (Aphididae) from Colorado. Great Basin Naturalist 12:57–61.
- 75. Hottes, F.C. 1952. A new species of *Amphorophora* (Aphididae). Proceedings of the Biological Society of Washington 65:131–133.
- 76. Hottes, F.C. 1953. Notes on some species of *Cinara*, with descriptions of two new species from piñon pine (Aphidae). Proceedings of the Biological Society of Washington 66:153–158.
- 77. Hottes, F.C. 1953. Descriptions of some undescribed forms of Aphidae. Proceedings of the Biological Society of Washington 66:199–202.
- 78. Hottes, F.C. 1954. Proposed use of the plenary powers to designate, as the type species of “*Lachnus*” Burmeister, 1835, and “*Cinara*” Curtis, 1835 (Class Insecta, Order Hemiptera) a species in harmony with accepted nomenclatorial practice. Bulletin of Zoological Nomenclature 9:174–183.
- 79. Citation withdrawn.
- 80. Hottes, F.C. 1954. Some observations on the rostrum of *Cinara puerca* Hottes (Aphidae). Great Basin Naturalist 14:83–86.
- 81. Hottes, F.C. 1954. Descriptions of some undescribed forms of *Lachnini* (Aphidae). Proceedings of the Biological Society of Washington 67:89–91.
- 82. Hottes, F.C. 1954. Descriptions and notes on some species of *Cinara* (Aphidae). Proceedings of the Biological Society of Washington 67:251–261.
- 83. Hottes, F.C. 1955. *Cinara* descriptions (Aphidae). Proceedings of the Biological Society of Washington 68:67–77.

84. Hottes, F.C. 1955. Three new subspecies and figures of five previously unfigured species of *Cinara* (Aphidae). Proceedings of the Biological Society of Washington 68:101–104.
85. Hottes, F.C. 1955. Three new species of *Cinara* (Aphidae). Proceedings of the Biological Society of Washington 68:197–203.
86. Hottes, F.C. 1956. A new species of *Cinara* from Maine (Aphidae). Proceedings of the Biological Society of Washington 69:65–67.
87. Hottes, F.C. 1956. A new species of *Cinara* from Canada (Aphidae). Proceedings of the Biological Society of Washington 69:63–64.
88. Hottes, F.C. 1956. Two new species of *Cinara* from Arizona (Aphidae). Proceedings of the Biological Society of Washington 69:83–87.
89. Hottes, F.C. 1956. Descriptions of some undescribed forms of *Cinara* (Aphidae). Proceedings of the Biological Society of Washington 69:89–92.
90. Hottes, F.C. 1956. Two new species of *Cinara* from northern Arizona with illustrations of hitherto unfigured species and notes on *Schizolachnus flocculosa* (Williams) (Aphidae). Proceedings of the Biological Society of Washington 69:219–223.
91. Hottes, F.C. 1956. Two new species of *Cinara* from Alaska (Aphidae). Proceedings of the Biological Society of Washington 69:227–229.
92. Hottes, F.C. 1957. Four new species of conifer feeding aphids. Proceedings of the Biological Society of Washington 70:1–8.
93. Hottes, F.C. 1957. Descriptions and figures of the morphotypes of some conifer feeding aphids. Proceedings of the Biological Society of Washington 70:9–16.
94. Hottes, F.C. 1958. Descriptions of some conifer feeding aphids from New England. Proceedings of the Biological Society of Washington 71:5–10.
95. Hottes, F.C. 1958. A new species of *Cinara* (Aphidae) from Sitka spruce. Proceedings of the Biological Society of Washington 71:61–62.
96. Hottes, F.C. 1958. A new Canadian species of *Cinara* (Aphidae) from *Picea rubens*. Proceedings of the Biological Society of Washington 71:63–64.
97. Hottes, F.C. 1958. Two new aphids from *Pinus contorta*. Proceedings of the Biological Society of Washington 71:75–79.
98. Hottes, F.C. 1958. A new species of *Cinara* from Michigan (Aphidae). Proceedings of the Biological Society of Washington 71:81–83.
99. Hottes, F.C. 1958. A new species of *Cinara* from Idaho (Aphidae). Proceedings of the Biological Society of Washington 71:85–86.
100. Hottes, F.C. 1958. A new species of *Cinara* from Washington (Aphidae). Proceedings of the Biological Society of Washington 71:87–89.
101. Hottes, F.C. 1958. A new species of *Cinara* from California sugar pine (Aphidae). Proceedings of the Biological Society of Washington 71:157–159.
102. Hottes, F.C. 1958. A new species of *Cinara* (Aphidae) from North Dakota. Proceedings of the Biological Society of Washington 71:171–172.
103. Hottes, F.C. 1958. A new species of *Cinara* from Delaware (Aphidae). Proceedings of the Biological Society of Washington 71:187–189.

104. Hottes, F.C. 1958. Descriptions of two allied species of *Cinara* (Aphidae). Proceedings of the Biological Society of Washington 71:191–195.
105. Hottes, F.C. 1959. Description of the apterous form of *Cinara pinivora* (W). Proceedings of the Biological Society of Washington 72:11–12.
106. Hottes, F.C. 1960. A new conifer feeding aphid from Washington. Proceedings of the Biological Society of Washington 73:197–198.
107. Hottes, F.C. 1960. Notes on and a key to the species of *Cinara* (Family Aphidae) living on *Pinus edulis*. Proceedings of the Biological Society of Washington 73:199–214.
108. Hottes, F.C. 1960. Notes on and a key to species of *Cinara* (Family Aphidae) which have *Abies* sp. as host. Proceedings of the Biological Society of Washington 73:221–233.
109. Hottes, F.C. 1961. A new species of *Cinara* from Colorado (Aphididae). Great Basin Naturalist 21:17–19.
110. Hottes, F.C. 1961. A new species of *Cinara* from Delaware (Aphididae). Great Basin Naturalist 21:20–22.
111. Hottes, F.C. 1961. A review and key of North American *Cinara* (Homoptera: Aphididae) occurring on *Picea*. Great Basin Naturalist 21:35–50.
112. Hottes, F.C. 1961. A new species of *Cinara* from knob-cone pine (Aphidae). Proceedings of the Biological Society of Washington 74:1–2.
113. Hottes, F.C. 1961. Two new species of *Cinara* from California (Aphidae) which have *Pinus coulteri* as host. Proceedings of the Biological Society of Washington 74:95–100.
114. Hottes, F.C. 1961. Notes on and a key to species of the genus *Cinara* (Aphidae) which have *Tsuga* and *Pseudotsuga* for host. Proceedings of the Biological Society of Washington 74:111–117.
115. Hottes, F.C. 1964. Three new species of *Cinara*, together with a preliminary list of the species of this genus known from Alaska (Aphididae, Homoptera). Entomologische Berichten 24:50–54.
116. Hottes, F.C., and G.A. Bradley. 1953. Two new species of *Cinara* (Homoptera: Aphididae) from Ontario. Proceedings of the Biological Society of Washington 66: 85–87.
117. Hottes, F.C., and G.D. Butler, Jr. 1955. A new species of *Cinara* from Arizona (Aphidae). Proceedings of the Biological Society of Washington 68:65–66.
118. Hottes, F.C., and E.O. Essig. 1953. Descriptions of new species of *Cinara* from western United States (Aphidae). Proceedings of the Biological Society of Washington 66: 159–172.
119. Hottes, F.C., and E.O. Essig. 1953. Four new species of *Cinara* (Aphidae). Proceedings of the Biological Society of Washington 66:205–210.
120. Hottes, F.C., and E.O. Essig. 1954. A new species of *Cinara* with notes on some western species of Aphidae. Proceedings of the Biological Society of Washington 67:93–98.
121. Hottes, F.C., and E.O. Essig. 1954. Descriptions and notes on some species of *Cinara* (Aphidae). Proceedings of the Biological Society of Washington 67:151–157.
122. Hottes, F. C., and E.O. Essig. 1954. A new species of *Cinara* and notes on two recently described species (Aphidae). Proceedings of the Biological Society of Washington 67:275–276.

123. Hottes, F. C., and E.O. Essig. 1955. A new species of *Cinara* from Oregon (Aphidae). *Proceedings of the Biological Society of Washington* 68:61–63.
124. Hottes, F.C., and T.H. Frison. 1931. The plant lice, or Aphidae, of Illinois. *Bulletin of the Illinois State Natural History Survey* 19:121–447.
125. Hottes, F.C., and G.F. Knowlton. 1954. Two new species of *Cinara* (Aphidae). *Great Basin Naturalist* 14:11–13.
126. Hottes, F.C., and L.P. Wehrle. 1951. Two new species of *Lachnini* (Aphididae) from Arizona. *Proceedings of the Biological Society of Washington* 64:43–46.
- *127. Hunter, W.D. 1901. The Aphididae of North America. *Bulletin of the Iowa Agricultural Experiment Station* 60:63–138. Species: *abietis*, *australis*, *laricifex*, *pini*, *strobi*.
128. Johnson, N.E. 1965. Reduced growth associated with infestations of Douglas-fir seedlings by *Cinara* species (Homoptera: Aphidae). *Canadian Entomologist* 97:113–119.
129. Kaltenbach, J.H. 1843. *Monographie der Familien der Pflanzenläuse (Phytophthires)*. Aachen. 222 p.
- *130. Knapp, V.R. 1973. Preliminary annotated list of Indiana Aphididae. *Proceedings of the Indiana Academy of Science* 82:242–263. Species: *foracula*, *palmerae*, *pineae*, *pinicola*, *schwarzii*, *strobi*.
- *131. Knapp, V.R. 1975. Host list of Indiana aphids (Homoptera: Aphididae). *Proceedings of the Indiana Academy of Science* 84:307–312. Species: *glabra*, *sibiricae*, *thatcheri*, *winonkae*.
- *132. Knapp, V.R. 1977. New Indiana records of aphids (Homoptera: Aphididae). *Proceedings of the Indiana Academy of Science* 86:242–243. Species: *piceicola*.
133. Knowlton, G.F. 1930. Notes on Utah *Lachnea* (Aphididae). *Canadian Entomologist* 62:152–161.
134. Knowlton, G.F. 1935. Four western aphids. *Annals of the Entomological Society of America* 28:281–284.
- *135. Knowlton, G.F. 1935. Aphid notes. *Canadian Entomologist* 67:190–195. Species: *curvipes*, *sibiricae*.
136. Knowlton, G.F. 1935. Notes on western aphids. *Pan-Pacific Entomologist* 11:135–142.
- *137. Knowlton, G.F., and C.F. Smith. 1936. Notes on intermountain aphids. *Entomological News* 47:210–213. Species: *ferrisi*, *foracula*, *glehna*, *lasiocarpae*.
- *138. Knowlton, G.F. 1941. Studies of western aphids. *Proceedings of the Utah Academy of Sciences, Arts and Letters* 18:41–44. Species: *brevispinosa*, *oregonensis*, *taxifoliae*, *terminalis*.
139. Knowlton, G.F. 1942. Aphids from Mount Timpanogos, Utah. *Great Basin Naturalist* 3:5–8.
- *140. Knowlton, G.F. 1952. Aphids–Aphididae–Homoptera. Records and notes, largely from Utah. *Utah Agricultural Experiment Station Mimeograph Series* 387:1–23. Species: *braggii*, *coloradensis*, *curvipes*, *edulis*, *engelmanniensiis?*, *glehna*, *juniperi*, *medispinosa*, *murrayanae*, *nigra?*, *occidentalis*, *palmerae*, *pineae*, *pini*, *pseudotsugae*, *pulverulens*, *sabinae*, *schwarzii*, *solitaria*, *taxifoliae*, *terminalis*, *tsugae*, *winonkae*.
- *141. Knowlton, G.F. 1958. Some Utah insects–1958. *Utah State University Extension Service Mimeograph Series* 171:1–16. Species: *curvipes*, *pseudotaxifoliae*, *pseudotsugae*, *tujafilina*, *wahtolca* subsp. *curtiwahtolca*.

- *142. Knowlton, G.F. 1983. Aphids of Utah. An annotated list—Homoptera: Aphididae. Utah State University Research Bulletin 509:1–155. Species: *apini*, *atra*, *braggii*, *brevispinosa*, *burrilli*, *chinookiana*, *coloradensis*, *confinis*, *cupressi*, *curtithirsuta*, *curvipes*, *edulis*, *engelmanniensis*, *fornacula*, *glehna*, *hottesi*, *juniperi*, *medispinosa*, *minuta*, *murrayanae*, *nigra*, *nitidula*, *occidentalis*, *oregonensis*, *osborni*, *pilicornis*, *pineae*, *pini*, *pinivora*, *ponderosa*, *pruinosa*, *pseudotaxifoliae*, *pseudotsugae*, *pulverulens*, *sabinae*, *schwarzii*, *solitaria*, *splendens*, *tanneri*, *taxifoliae*, *terminalis*, *thatcheri*, *tujafilina*, *villosa*, *wahtolca* subsp. *curtiwahtolca*, *zoarcbursara*.
- 143. Knowlton, G.F., and C.F. Smith. 1938. Notes on western conifer aphids (Homoptera: Aphididae). Entomological News 49:65–69.
- 144. Koch, C.L. 1854–1857. Die Pflanzenläuse Aphiden getreu nach dem Leben abgebildet und beschrieben. Verlag von J.L. Lotzbeck, Nürnberg (p. 1–335; 1854).
- *145. Leonard, M.D. 1926 [actual date of publication 1928]. A list of the insects of New York with a list of spiders and certain other allied groups. Cornell University Agricultural Experiment Station Memoir 101:184–193. Species: *curvipes*.
- *146. Leonard, M.D. 1956. A preliminary list of the aphids of New Jersey. Journal of the New York Entomological Society 64:99–123. Species: *abietis*, *pini*, *strobi*.
- *147. Leonard, M.D. 1959. A preliminary list of the aphids of Missouri. Journal of the Kansas Entomological Society 32(1):9–18. Species: *tujafilina*.
- *148. Leonard, M.D. 1963. Additional records of Missouri aphids. Journal of the Kansas Entomological Society 36(2):65–84. Species: *pini*, *strobi*, *tujafilina*.
- *149. Leonard, M.D. 1964. Additional records of New Jersey aphids. Journal of the New York Entomological Society 72:79–101. Species: *longispinosa*, *palmerae*, *pergandei*, *pilicornis*, *pineae*, *strobi*.
- *150. Leonard, M.D. 1966. Natural history of Plummers Island, Maryland. XIX. Annotated list of the aphids (Homoptera: Aphididae). Proceedings of the Biological Society of Washington 79:117–126. Species: *junipivora* = *juniperivora*, *pergandei*, *taedae*.
- *151. Leonard, M.D. 1966. A preliminary list of the aphids of Massachusetts (Homoptera). Transactions of the American Entomological Society 92:29–66. Species: *atlantica*, *curvipes*, *strobi*.
- *152. Leonard, M.D. 1968. California aphids in the Cornell University collection (Homoptera: Aphididae). Cornell University Agricultural Experiment Station Memoir 407:1–31. Species: *brevispinosa*, *curvipes*, *murrayanae*, *pseudotsugae*, *schwarzii*, *taxifolia*, *tujafilina*.
- *153. Leonard, M.D. 1968. Supplement to "A list of aphids of New York" 1961–1966. Proceedings of the Rochester Academy of Science 11(4):257–361. Species: *cupressi*, *fornacula*, *laricis*, *piceicola*, *pilicornis*, *pineae*, *pinivora*, *sabinae*, *strobi*, *watsoni*.
- *154. Leonard, M.D., and T.L. Bissell. 1970. A list of the aphids of the District of Columbia, Maryland and Virginia. University of Maryland Agricultural Experiment Station Contribution 4390. 129 p. Species: *carolina*, *gracilis*, *junipivora* = *juniperivora*, *pilicornis*, *pineae*, *pergandei*, *schwarzii*?, *strobi*, *taedae*, *tujafilina*.
- *155. Leonard, M.D. 1971. More records of New Jersey aphids (Homoptera: Aphididae). Journal of the New York Entomological Society 79:62–83. Species: *braggii*?, *cupressi*, *pilicornis*, *pineae*, *pinicola*, *strobi*, *tujafilina*, *watsoni*.

- *156. Leonard, M.D. 1971. A second supplement to a list of aphids of New York (Homoptera: Aphididae). Search Agriculture: Entomology 1(12):1–31. Species: *canadensis*, *carolina*, *juniperi*, *strobi*, *watsoni*.
- *157. Leonard, M.D. 1974. A list of the aphids of Oregon (Homoptera: Aphididae). Mimeographed at Salem, Oregon. Extent of distribution unknown. 116 p. Species: *arizonica*, *anzai*, *brevispinosa*, *chinookiana*, *curtahiruta*, *curvipes*, *dubia*, *engelmanniensis*, *ferrisi*, *forncula*, *fresai*, *gentneri*, *hirsuta*, *inscripta*, *juniperensis?*, *juniperi*, *laricifoliae*, *medispinosa*, *occidentalis*, *oregoni*, *oregonensis*, *pilicornis*, *pinea*, *ponderosae*, *pseudotaxifoliae*, *pseudotsugae*, *rubicunda*, *schuhi*, *setulosa*, *sibiricae*, *sonata*, *taxifoliae*, *tsugae*, *tujafilina*, *wahsugae*.
- *158. Leonard, M.D., and P.P. Burbutis. 1967. The aphids or plant lice of Delaware (Homoptera: Aphididae). University of Delaware Agricultural Experiment Station Technical Bulletin 363:3–18. Species: *braggii*, *canatra*, *carolina*, *forncula*, *gracilis*, *harmonia*, *lunata*, *pergandei*, *pilicornis*, *pinivora*, *sibiricae*, *strobi*, *tujafilina*, *watsoni*.
- *159. Leonard, M.D., and A.N. Tissot. 1965. A preliminary list of Texas aphids. Florida Entomologist 48(4):255–264. Species: *tujafilina*.
- *160. Leonard, M.D., and H.G. Walker. 1974. Additional aphids collected in the Los Angeles State and County Museum (Homoptera: Aphididae). United States Department of Agriculture Cooperative Economic Insect Report 24(39):778–779. Species: *arizonica*, *fresai*, *ponderosae*.
- 161. Linnaeus, C. 1758 [first edition, 1735]. Systema naturae per regna tria naturae, secundum classes, ordines, genera, species, cum characteribus, differentiis, synonymis, locis. Laurentii Salvii, Holmiae (Edition 10). Tomus I. 824 p.
- *162. MacGillivray, M.E. 1955. Further aphids of the maritime provinces (Homoptera: Aphidae). Canadian Entomologist 87(8):331–337. Species: *curvipes*, *laricifex*, *laricifoliae*, *lasiocarpae*, *pineae*, *strobi*.
- 163. Mason, A.C. 1922. Life history studies of some Florida aphids. Florida Entomologist 5(4):53–59, 62–65.
- *164. Mason, A.C. 1921. A host plant list of aphids in the vicinity of the University of Florida. Florida Entomologist 5(2):21–25. Species: *pini*.
- 165. McDaniel, E.I. 1937. Control of sucking insects on conifers. Michigan State College Extension Division Bulletin 175:1–25.
- 166. Mordvilko, A.K. 1895. Zur Biologie und Systematik der Baumläuse (Lachninae Pass. partim) des Weichselgebietes. Zoologischer Anzeiger 18:93–104.
- 167. Oestlund, O.W. 1887. Synopsis of the Aphididae of Minnesota. Bulletin of the Geological and Natural History Survey of Minnesota 4:1–100.
- *168. Oestlund, O.W. 1922. A synoptical key to the Aphididae of Minnesota. Nineteenth Report, State Entomologist of Minnesota. Species: *curvipes*, *juniperi*, *laricifex*, *piceae* [misidentification?], *pini*, *strobi* (p. 114–151).
- *169. Olsen, C.E. 1921. Two season's collecting of Aphidae, principally on Long Island, New York, with notes on some of the species. Bulletin of the Brooklyn Entomological Society 16:14–19. Species: *strobi*.
- 170. Ortiz, J.P. 1982. Contribucion al conocimiento de los afidos forestales del genero *Cinara* Curtis en parte del eje neovolcanico (Distrito Federal, Mexico y Michocan). Instituto Nacional de Investigaciones Forestales, Mexico, Boletín Técnico 78:1–42.

171. Palmer, M.A. 1926. Life history studies of seven described species of the genus *Lachnus*. *Annals of the Entomological Society of America* 19:300–330.
172. Palmer, M.A. 1936. Four new aphids from Colorado. *Annals of the Entomological Society of America* 29:273–278.
173. Palmer, M.A. 1936. Additions and corrections to the “Aphidae of Colorado.” *Annals of the Entomological Society of America* 29:729–748.
174. Palmer, M.A. 1945. Supplementary notes on ten described species of Lachnini (Aphidae). *Annals of the Entomological Society of America* 38:447–453.
175. Palmer, M.A. 1952. Aphids of the Rocky Mountain region. *The Thomas Say Foundation* 5:1–452.
176. Patch, E.M. 1912. Aphid pests of Maine. *Bulletin of the Maine Agricultural Experiment Station* 202:159–178.
177. Patch, E.M. 1923. Family Aphididae. Pages 250–335 in Britton’s guide to the insects of Connecticut. Part IV. The Hemiptera or sucking insects of Connecticut. *Bulletin of the Connecticut State Geological and Natural History Survey* 34.
- *178. Patch, E.M. 1938. Food-plant catalogue of the aphids of the world including the Phylloxeridae. *Bulletin of the Maine Agricultural Experiment Station* 393:35–431. Species: All species known to Patch prior to the publication date are included; supercedes Wilson and Vickery 1918.
179. Patti, J.H., and R.C. Fox. 1981. Seasonal occurrence of *Cinara* spp. and *Essigella pini* Wilson on loblolly pine, *Pinus taeda* L. *Journal of the Georgia Entomological Society* 16(1):96–105.
- *180. Pepper, J.O. 1965. A list of the Pennsylvania Aphididae and their host plants (Homoptera). *Transactions of the American Entomological Society* 91(3):181–231. Species: *banksiana*, *canadensis*, *canatra*, *carolina*, *costata*, *foracula*, *harmonia*, *juniperi*, *laricis*, *longispinosa*, *osborniana*, *palmerae*, *pergandei*, *pilicornis*, *pineae*, *strobi*, *taedae*, *tujafilina*, *watsoni*.
181. Pepper, J.O., and A.N. Tissot. 1955. A new species of *Cinara* from Pennsylvania (Homoptera: Aphidae). *Florida Entomologist* 38:85–88.
182. Pepper, J.O., and A.N. Tissot. 1973. Pine-feeding species of *Cinara* in the eastern United States (Homoptera: Aphidae). *Florida Agricultural Experiment Station Monograph Series* 3:1–160.
183. Pierson, H.B. 1920. An infestation of the white-pine aphid. *Psyche* 27:62–63.
184. Pintera, A. 1966. Revision of the genus *Cinara* Curt. (Aphidoidea, Lachnidae) in Middle Europe. *Acta Entomologica Bohemoslovaca* 63:281–321.
- *185. Quednau, F.W. 1966. A list of aphids from Quebec with descriptions of two new species (Homoptera: Aphidoidea). *Canadian Entomologist* 98(4):415–430. Species: *abieticola*, *apini*, *curvipes*, *juniperi*, *laricifex*, *occidentalis*, *palmerae*, *pergandei*, *pilicornis*, *pineae*, *strobi*.
186. Richards, W.R. 1956. Two new species of Aphididae collected in Western Canada (Homoptera). *Canadian Entomologist* 88:203–207.
- *187. Richards, W.R. 1976. A host index for species of Aphidoidea described during 1935 to 1969. *Canadian Entomologist* 108:499–550 [Supplement to Patch 1938].

188. Riley, C.V. 1893. Corrections and notes. Report to the New York State Museum of Natural History 46:411–413.
- *189. Robinson, A.G. 1979. Annotated list of aphids (Homoptera: Aphididae) of northwest Canada, Yukon and Alaska. *Manitoba Entomologist* 13:23–29. Species: *alaskana*, *bonica*, *bonita*, *braggii*, *coloradensis*, *forncacula*, *glacialis*, *laricifex*, *nimbata*, *obscura*, *pergandei*, *rara*, *spiculosa*, *vandykei*, *yukona*.
- *190. Robinson, A.G., and G.A. Bradley. 1965. A preliminary list of the aphids in Manitoba. *Proceedings of the Entomological Society of Manitoba* 21:39–45. Species: *abieticola*, *banksiana*, *bogdanowi* = *pruinosa*, *braggii*, *gracilis*, *coloradensis*, *curvipes*, *forncacula*, *harmonia*, *hottesi*, *juniperi*, *laricifex*, *manitobensis*, *obscura*, *ontarioensis*, *palmerae*, *pergandei*, *petersoni*, *pinea*, *piniradicis*, *pinivora*, *rara*, *saskensis*, *spiculosa*, *strobi*, *subterranea*.
- *191. Robinson, A.G., and G.A. Bradley. 1968. A revised list of aphids of Manitoba. *Manitoba Entomologist* 2:60–65. Species: *abieticola*, *banksiana*, *bogdanowi* = *pruinosa*, *braggii*, *canatra*, *coloradensis*, *cronartii*, *curvipes*, *forncacula*, *gracilis*, *harmonia*, *hottesi*, *juniperi*, *laricifex*, *manitobensis*, *obscura*, *ontarioensis*, *palmerae*, *pergandei*, *petersoni*, *pinea*, *piniradicis*, *pinivora*, *rara*, *saskensis*, *spiculosa*, *strobi*, *subterranea*.
- *192. Smith, C.F., and C.S. Parron. 1978. An annotated list of Aphididae (Homoptera) of North America. North Carolina Agricultural Experiment Station Technical Bulletin 255:1–428. Species: All species in North America known to Smith and Parron prior to the publication date are included.
- *193. Smith, R.C. 1932. A summary of the population of injurious insects in Kansas for 1931. *Journal of the Kansas Entomological Society* 5(3):65–92. Species: *tujafilimus* [*tujafilina*] (p. 86).
194. Stroyan, H.L.G. 1964. Notes on hitherto unrecorded or overlooked British aphid species. *Transactions of the Royal Entomological Society of London* 116(3):29–72.
195. Swain, A.F. 1918. New Aphididae from California. *Transactions of the American Entomological Society* 44:1–23.
196. Swain, A. F. 1919. A synopsis of the Aphididae of California. University of California Publications in Entomology 3:1–221.
197. Thomas, C. 1879. Noxious and beneficial insects of the State of Illinois. Third Annual Report of the State Entomologist of Illinois 8:1–212.
198. Tissot, A.N. 1932. Six new aphids from Florida with descriptions of the sexual forms of another species. *Florida Entomologist* 16:1–13.
199. Tissot, A.N. 1939. Notes on the Lachnini of Florida with descriptions of two new species (Homoptera: Aphidiidae). *Florida Entomologist* 22:33–48.
200. Tissot, A.N. 1944. Additions to the Lachnini of Florida (Homoptera: Aphididae). *Florida Entomologist* 27:43–54.
201. Tissot, A.N. 1945. *Cinara osborniana* nom. n. A correction. *Florida Entomologist* 27(4):102.
202. Tissot, A.N., and J.O. Pepper. 1967. Two new species of *Cinara* (Homoptera: Aphididae) associated with pine rust lesions. *Florida Entomologist* 50:1–10.
203. Van Cleave, H.W. 1969. A taxonomic study of the aphids of Oklahoma (Homoptera: Aphididae). Ph.D. Dissertation. Oklahoma State University, Stillwater. 218 p.

204. Voegtlin, D.J. 1976. A biosystematic study of *Cinara* spp. (Homoptera: Aphididae) of the conifers of the westside Sierra forests. Ph.D. Dissertation. University of California, Berkeley. 208 p.
205. Voegtlin, D.J. 1982. A new aphid species, *Cinara radicivora* (Homoptera: Aphididae), living on white fir. Pan-Pacific Entomologist 58(3):196–201.
206. Voegtlin, D.J., and D.L. Dahlsten. 1982. Observations on the biology of *Cinara ponderosae* (Williams) (Homoptera: Aphididae) in the westside forests of the Sierra Nevada. Hilgardia 50(5):1–19.
207. Voegtlin, D.J., G. Remaudière, and R. Peña Martínez. 1986. New and little known aphids from Mexico. 8th note: A new *Cinara* (Homoptera: Aphididae) living on *Pinus* with a redescription of *Cinara louisianensis* Boudreaux. Proceedings of the Entomological Society of Washington 88(2):227–236.
- *208. Walker, H.G., M.B. Stoetzel, and L. Enari. 1978. Additional aphid-host relationships at the Los Angeles State and County Arboretum (Homoptera: Aphididae). Proceedings of the Entomological Society of Washington 80(4):575–605. Species: *arizonica*, *californica*, *fresai*, *juniperi*, *pilicornis*, *ponderosae*, *sibiricae*, *tujafilina*, *wahluca*.
209. Weed, C.M. 1890. Article V. Fourth contribution to a knowledge of the life-history of certain little-known plant-lice (Aphididae). Bulletin of the Ohio Agricultural Experiment Station, Technical Series 1:111–120.
210. Williams, T.A. 1910 [actual date of publication 1911]. The Aphididae of Nebraska. University Studies of the University of Nebraska 10:85–175; also page 1–91.
211. Wilson, H.F. 1912. Aphid notes from Oregon. Canadian Entomologist 44:191–194.
212. Wilson, H.F. 1912. A new aphid from Oregon. Canadian Entomologist 44:302–303.
213. Wilson, H.F. 1915. Miscellaneous aphid notes, chiefly from Oregon. Transactions of the American Entomological Society 41:85–108.
214. Wilson, H.F. 1919. Some new lachnids of the genus *Lachniella* (Homoptera–Hemiptera). Canadian Entomologist 51:18–22.
215. Wilson, H.F. 1919. Some new lachnids of the genus *Lachniella* (Homoptera–Hemiptera). Canadian Entomologist 51:41–47.
216. Wilson, H.F. 1919. Three new lachnids with comparative notes on three others (Homop.). Entomological News 30:1–7.
- *217. Wilson, H.F., and R.A. Vickery. 1918. A species list of the Aphididae of the world and their recorded food plants. Transactions of the Wisconsin Academy of Science, Arts and Letters 19(Part 1):22–355. Species: *abieticola*, *abietis*, *australis*, *confinis*, *costata*, *cupressi*, *curvipes*, *glehna*, *laricifex*, *laricifoliae*, *occidentalis*, *oregonensis*, *piceicola*, *pilicornis*, *pineae*, *pini*, *pinicola*, *ponderosae*, *pruinosa*, *pseudotsugae*, *rubicunda*, *strobi*, *tujafilina*.
- *218. Wray, D.L. 1950. Insects of North Carolina. Second Supplement. North Carolina Department of Agriculture, Division of Entomology, Raleigh. 59 p. Species: *carolina* (p. 13).
- *219. Wray, D.L. 1967. Insects of North Carolina. Third Supplement. North Carolina Department of Agriculture, Division of Entomology, Raleigh. 181 p. Species: *carolina* (p. 31–32).
220. Zetterstedt, J.W. 1828. Ordo III. Hemiptera. *Aphis*. Fauna Insectorum Lapponica 1:557–60.

List of Hosts

Family Cupressaceae

- Callitris columellaris* F.J. Muell.
tujafilina (Del Guercio) 1909; *Lachniella*
- Callitris drummondii* Benth.
tujafilina (Del Guercio) 1909; *Lachniella*
- Callitris gracilis* R.T. Baker
tujafilina (Del Guercio) 1909; *Lachniella*
- Callitris morrisonii* R.T. Baker
tujafilina (Del Guercio) 1909; *Lachniella*
- Callitris murrayensis* Miq.
tujafilina (Del Guercio) 1909; *Lachniella*
- Callitris propinqua* R. Br.
tujafilina (Del Guercio) 1909; *Lachniella*
- Callitris rhomboidea* R. Br.
tujafilina (Del Guercio) 1909; *Lachniella*
- Calocedrus decurrens* (Torr.) Florin
juniperi (De Geer) 1773; *Aphis*
- Chamaecyparis lawsoniana* (A. Murr.) Parl.
tujafilina (Del Guercio) 1909; *Lachniella*
- Cupressus goveniana* var. *pygmaea* Lemm.
fresai Blanchard 1939; *Cinara*
juniperi (De Geer) 1773; *Aphis*
tujafilina (Del Guercio) 1909; *Lachniella*
- Cupressus macnabiana* A. Murr.
fresai Blanchard 1939; *Cinara*
- Cupressus macrocarpa* Hartw.
cupressi (Buckton) 1881; *Lachnus*
- Cupressus sempervirens* L.
fresai Blanchard 1939; *Cinara*
- Cupressus* sp.
louisianensis Boudreaux 1948; *Cinara*
- Juniperus chinensis* L.
cupressi (Buckton) 1881; *Lachnus*
fresai Blanchard 1939; *Cinara*
juniperi (De Geer) 1773; *Aphis*
- Juniperus communis* L.
cognita Hottes & Essig 1954; *Cinara*
fresai Blanchard 1939; *Cinara*
juniperensis (Gillette & Palmer) 1925;
Lachnus
juniperi (De Geer) 1773; *Aphis*
sibiricae (Gillette & Palmer) 1924;
Lachnus
- Juniperus horizontalis* Moench
fresai Blanchard 1939; *Cinara*
manitobensis Bradley 1963; *Cinara*
petersoni Bradley 1965; *Cinara*
- Juniperus monosperma* (Engelm.) Sarg.
fresai Blanchard 1939; *Cinara*
tonaluca Hottes & Wehrle 1951; *Cinara*
- Juniperus occidentalis* Hook.
fresai Blanchard 1939; *Cinara*
rubicunda (Wilson) 1915; *Lachnus*
- Juniperus osteosperma* (Torr.) Little
burrilli (Wilson) 1919; *Lachniella*
pulverulens (Gillette & Palmer) 1924;
Lachnus
wahhaka Hottes 1951; *Cinara*
- Juniperus sabina* L.
fresai Blanchard 1939; *Cinara*
- Juniperus scopulorum* Sarg.
burrilli (Wilson) 1919; *Lachniella*
cupressi (Buckton) 1881; *Lachnus*
fresai Blanchard 1939; *Cinara*
pulverulens (Gillette & Palmer) 1924;
Lachnus
sabinae (Gillette & Palmer) 1924; *Lachnus*
sibiricae (Gillette & Palmer) 1924; *Lachnus*
wahluca Hottes 1952; *Cinara*
- Juniperus silicicola* (Small) Bailey
fresai Blanchard 1939; *Cinara*
juniperivora (Wilson) 1919; *Lachnus*
wacasassae Tissot 1944; *Cinara*
- Juniperus* sp.
curvipes (Patch) 1912; *Lachnus*
tujafilina (Del Guercio) 1909; *Lachniella*
- Juniperus squamata* Lamb.
fresai Blanchard 1939; *Cinara*
juniperi (De Geer) 1773; *Aphis*

Juniperus virginiana L.

canadensis Hottes & Bradley 1953; *Cinara cupressi* (Buckton) 1881; *Lachnus difficilis* Hottes & Frison 1931; *Cinara fresai* Blanchard 1939; *Cinara juniperi* (De Geer) 1773; *Aphis juniperivora* (Wilson) 1919; *Lachnus sabinae* (Gillette & Palmer) 1924; *Lachnus*

Thuja occidentalis L.

juniperi (De Geer) 1773; *Aphis tujafilina* (Del Guercio) 1909; *Lachniella*

Thuja orientalis (L.) Franco

louisianensis Boudreaux 1948; *Cinara tujafilina* (Del Guercio) 1909; *Lachniella winonkae* Hottes 1934; *Cinara*

Thuja sp.

cupressi (Buckton) 1881; *Lachnus idahoensis* Knowlton 1935; *Cinara*

Widdringtonia juniperoides Endl.

tujafilina (Del Guercio) 1909; *Lachniella*

Family Pinaceae

Abies amabilis Dougl. ex Forbes

occidentalis (Davidson) 1909; *Lachnus*

Abies balsamea (L.) Mill.

abieticola (Cholodkovsky) 1899; *Lachnus curvipes* (Patch) 1912; *Lachnus lasiocarpae* (Gillette & Palmer) 1930; *Lachnus occidentalis* (Davidson) 1909; *Lachnus*

Abies concolor (Gord. & Glend.) Lindl. ex

abieticola (Cholodkovsky) 1899; *Lachnus abietis* (Fitch) 1851; *Lachnus alacra* Hottes & Essig 1953; *Cinara curtithirsuta* Hottes & Essig 1954; *Cinara curvipes* (Patch) 1912; *Lachnus ferrisi* (Swain) 1918; *Lachnus gentneri* Hottes 1957; *Cinara grande* Hottes 1956; *Cinara hirta* Hottes & Essig 1953; *Cinara kiusa* Hottes 1957; *Cinara occidentalis* (Davidson) 1909; *Lachnus osborni* Knowlton 1942; *Cinara radicivora* Voegtlin 1982; *Cinara*

schuhi Hottes 1957; *Cinara*

sonata Hottes 1955; *Cinara*

zoarcbursara Knowlton 1935; *Cinara*

Abies grandis (Dougl. ex D. Don) Lindl.

abieticola (Cholodkovsky) 1899; *Lachnus confinis* (Koch) 1856; *Lachnus curvipes* (Patch) 1912; *Lachnus gentneri* Hottes 1957; *Cinara occidentalis* (Davidson) 1909; *Lachnus pacifica* (Wilson) 1919; *Lachniella sonata* Hottes 1955; *Cinara*

Abies lasiocarpa (Hook.) Nutt

abieticola (Cholodkovsky) 1899; *Lachnus chinookiana* Hottes 1955; *Cinara confinis* (Koch) 1856; *Lachnus curvipes* (Patch) 1912; *Lachnus lasiocarpae* (Gillette & Palmer) 1930; *Lachnus minuta* Hottes & Knowlton 1954; *Cinara occidentalis* (Davidson) 1909; *Lachnus osborni* Knowlton 1942; *Cinara utahensis* Knowlton & Smith 1938; *Cinara*

Abies magnifica A. Murr.

curvipes (Patch) 1912; *Lachnus setulosa* Hottes & Essig 1955; *Cinara*

Abies religiosa (HBK) Schlechtend & Cham.

curvipes (Patch) 1912; *Lachnus*

Abies sibiricae Ledeb.

occidentalis (Davidson) 1909; *Lachnus*

Abies sp.

engelmanniensis (Gillette & Palmer) 1925; *Lachnus*

Cedrus deodara Loud.

curvipes (Patch) 1912; *Lachnus*

Cedrus sp.

abieticola (Cholodkovsky) 1899; *Lachnus*

Larix laricina (Du Roi) K. Koch

laricifex (Fitch) 1858; *Lachnus laricis* (Hartig) 1839; *Lachnus lyallii* Bradley 1956; *Cinara palmerae* (Gillette) 1917; *Lachnus spiculosa* Bradley 1956; *Cinara subterranea* Bradley 1956; *Cinara*

Larix lyallii Parl.*lyallii* Bradley 1956; *Cinara**Larix occidentalis* Nutt.*laricifoliae* (Wilson) 1915; *Lachnus**Picea abies* (L.) Karst.*braggii* (Gillette) 1917; *Lachnus costata* (Zetterstedt) 1828; *Aphis fornacula* Hottes 1930; *Cinara palmerae* (Gillette) 1917; *Lachnus piceicola* (Cholodkovsky) 1896; *Lachnus pilicornis* (Hartig) 1841; *Aphis**Picea engelmannii* Parry ex Engelm.*braggii* (Gillette) 1917; *Lachnus caliginosa* Hottes 1961; *Cinara coloradensis* (Gillette) 1917; *Lachnus curvipes* (Patch) 1912; *Lachnus engelmanniensis* (Gillette & Palmer) 1925; *Lachnus fornacula* Hottes 1930; *Cinara glehna* (Essig) 1915; *Lachnus hottesi* (Gillette & Palmer) 1924; *Lachnus nimbata* Hottes 1954; *Cinara obscura* Bradley 1953; *Cinara palmerae* (Gillette) 1917; *Lachnus pruinosa* (Hartig) 1841; *Lachnus saskensis* Bradley 1962; *Cinara vandykei* (Wilson) 1919; *Lachniella**Picea glauca* (Moench) Voss*acadiana* Hottes 1956; *Cinara atripes* Hottes 1958; *Cinara bonita* Hottes 1956; *Cinara braggii* (Gillette) 1917; *Lachnus coloradensis* (Gillette) 1917; *Lachnus costata* (Zetterstedt) 1828; *Aphis curvipes* (Patch) 1912; *Lachnus fornacula* Hottes 1930; *Cinara hottesi* (Gillette & Palmer) 1924; *Lachnus jucunda* Hottes 1958; *Cinara nigripes* Bradley 1962; *Cinara obscura* Bradley 1953; *Cinara pallidipes* Hottes 1958; *Cinara palmerae* (Gillette) 1917; *Lachnus piceicola* (Cholodkovsky) 1896; *Lachnus pilicornis* (Hartig) 1841; *Aphis pinicola* (Kaltenbach) 1843; *Lachnus saskensis* Bradley 1962; *Cinara thatcheri* Knowlton & Smith 1938; *Cinara**vandykei* (Wilson) 1919; *Lachniella**yukona* Hottes 1964; *Cinara**Picea glehnii* (Friedr. Schmidt) M.T. Mast*glehna* (Essig) 1915; *Lachnus**Picea mariana* (Mill.) B.S.P.*abietis* (Fitch) 1851; *Lachnus braggii* (Gillette) 1917; *Lachnus fornacula* Hottes 1930; *Cinara hottesi* (Gillette & Palmer) 1924; *Lachnus mariana* Bradley 1956; *Cinara nigripes* Bradley 1962; *Cinara palmerae* (Gillette) 1917; *Lachnus rara* Bradley 1956; *Cinara**Picea pungens* Engelm.*braggii* (Gillette) 1917; *Lachnus caliginosa* Hottes 1961; *Cinara coloradensis* (Gillette) 1917; *Lachnus costata* (Zetterstedt) 1828; *Aphis fornacula* Hottes 1930; *Cinara glehna* (Essig) 1915; *Lachnus palmerae* (Gillette) 1917; *Lachnus pilicornis* (Hartig) 1841; *Aphis pruinosa* (Hartig) 1841; *Lachnus wanepae* Hottes 1933; *Cinara**Picea rubens* Sarg.*braggii* (Gillette) 1917; *Lachnus fornacula* Hottes 1930; *Cinara nepticula* Hottes 1958; *Cinara pinicola* (Kaltenbach) 1843; *Lachnus**Picea sitchensis* (Bong.) Carr.*braggii* (Gillette) 1917; *Lachnus coloradensis* (Gillette) 1917; *Lachnus costata* (Zetterstedt) 1828; *Aphis fornacula* Hottes 1930; *Cinara glacialis* Hottes 1964; *Cinara nigripes* Bradley 1962; *Cinara sitchensis* Hottes 1958; *Cinara vandykei* (Wilson) 1919; *Lachniella**Picea* sp.*abieticola* (Cholodkovsky) 1899; *Lachnus alaskana* Hottes 1964; *Cinara bonica* Hottes 1956; *Cinara caudelli* (Wilson) 1919; *Lachniella soplada* Hottes 1956; *Cinara vanduzei* (Swain) 1919; *Lachnus*

- Pinus albicaulis* Engelm.
anzai Hottes & Essig 1953; *Cinara ferrisi* (Swain) 1918; *Lachnus inscripta* Hottes & Essig 1953; *Cinara murrayanae* (Gillette & Palmer) 1924; *Lachnus oregoni* Hottes & Essig 1953; *Cinara*
- Pinus attenuata* Lemm.
essigi Hottes 1961; *Cinara*
- Pinus banksiana* Lamb.
apini (Gillette & Palmer) 1924; *Lachnus banksiana* Pepper & Tissot 1955; *Cinara brevispinosa* (Gillette & Palmer) 1924; *Lachnus canatra* Hottes & Bradley 1953; *Cinara cronartii* Tissot & Pepper 1967; *Cinara gracilis* (Wilson) 1919; *Lachniella kocheta* Hottes 1958; *Cinara longispinosa* Tissot 1932; *Cinara nigra* (Wilson) 1919; *Lachniella ontarioensis* Bradley 1962; *Cinara pergandei* (Wilson) 1919; *Lachniella pinea* (Mordvilko) 1895; *Lachnus piniradicis* Bradley 1959; *Cinara pinivora* (Wilson) 1919; *Lachniella russellae* Pepper & Tissot 1973; *Cinara strobis* (Fitch) 1851; *Eriosoma watsoni* Tissot 1939; *Cinara*
- Pinus canariensis* C. Smith
ponderosae (Williams) 1910; *Lachnus*
- Pinus cembroides* Zucc.
terminalis (Gillette & Palmer) 1924; *Lachnus wahtolca* Hottes 1953; *Cinara*
- Pinus clausa* (Chapm. ex Engelm.) Vasey ex Sarg.
atlantica (Wilson) 1919; *Lachniella carolina* Tissot 1932; *Cinara cronartii* Tissot & Pepper 1967; *Cinara pergandei* (Wilson) 1919; *Lachniella pinivora* (Wilson) 1919; *Lachniella taedae* Tissot 1932; *Cinara watsoni* Tissot 1939; *Cinara*
- Pinus contorta* Dougl. ex Loud.
brevispinosa (Gillette & Palmer) 1924; *Lachnus contortae* Hottes 1958; *Cinara medispinosa* (Gillette & Palmer) 1929; *Lachnus murrayanae* (Gillette & Palmer) 1924; *Lachnus parvicornis* Hottes 1958; *Cinara sclerosa* Richards 1956; *Cinara similis* (Gillette & Palmer) 1924; *Lachnus*
- Pinus contorta* var. *latifolia* Engelm.
brevispinosa (Gillette & Pamer) 1924; *Lachnus canatra* Hottes & Bradley 1953; *Cinara medispinosa* (Gillette & Palmer) 1929; *Lachnus murrayanae* (Gillette & Palmer) 1924; *Lachnus oregonensis* (Wilson) 1915; *Lachnus pergandei* (Wilson) 1919; *Lachniella*
- Pinus contorta* var. *murrayana* Grev. & Balf.
brevispinosa (Gillette & Palmer) 1924; *Lachnus medispinosa* (Gillette & Palmer) 1929; *Lachnus oregonensis* (Wilson) 1915; *Lachnus*
- Pinus cooperi* C. E. Blanco
schwarzii (Wilson) 1919; *Lachniella*
- Pinus coulteri* D. Don
arizonica (Wilson) 1919; *Lachniella diabolica* Hottes 1961; *Cinara fresai* Blanchard 1939; *Cinara montanensis* Hottes 1961; *Cinara tujafilina* (Del Guercio) 1909; *Lachniella*
- Pinus densiflora* Siebold & Zucc.
pergandei (Wilson) 1919; *Lachniella*
- Pinus douglasiana* Martínez
californica Hottes & Essig 1953; *Cinara ponderosae* (Williams) 1910; *Lachnus*
- Pinus durangensis* Roezl.
californica Hottes & Essig 1953; *Cinara*
- Pinus echinata* Mill.
atlantica (Wilson) 1919; *Lachniella carolina* Tissot 1932; *Cinara pergandei* (Wilson) 1919; *Lachniella watsoni* Tissot 1939; *Cinara*

Pinus edulis Engelm.

apachea Hottes & Butler 1955; *Cinara* *ater* (Gillette & Palmer) 1924; *Lachnus* *atra* (Gillette & Palmer) 1924; *Lachnus* *caliente* Hottes 1955; *Cinara* *curtiwahtolca* Hottes 1955; *Cinara* *edulis* (Wilson) 1919; *Lachniella* *metalica* Hottes 1956; *Cinara* *nitidula* Hottes 1954; *Cinara* *pinata* Hottes 1955; *Cinara* *piñona* Hottes 1953; *Cinara* *poketa* Hottes 1956; *Cinara* *puerca* Hottes 1954; *Cinara* *rustica* Hottes 1956; *Cinara* *tanneri* (Knowlton) 1930; *Lachnus* *terminalis* (Gillette & Palmer) 1924; *Lachnus* *wahtolca* Hottes 1953; *Cinara*

Pinus elliottii Engelm.

atlantica (Wilson) 1919; *Lachniella* *cronartii* Tissot & Pepper 1967; *Cinara* *melaina* Boudreaux 1948; *Cinara* *newelli* Tissot 1939; *Cinara* *pinivora* (Wilson) 1919; *Lachniella* *taedae* Tissot 1932; *Cinara* *watsoni* Tissot 1939; *Cinara*

Pinus flexilis James

apini (Gillette & Palmer) 1924; *Lachnus* *curtivillosa* Hottes 1955; *Cinara* *flexilis* (Gillette and Palmer) 1924; *Lachnus* *parvavillosa* Hottes 1955; *Cinara* *villosa* (Gillette & Palmer) 1931; *Lachnus*

Pinus glabra Walt.

arizonica (Wilson) 1919; *Lachniella* *atlantica* (Wilson) 1919; *Lachniella* *californica* Hottes & Essig 1953; *Cinara* *carolina* Tissot 1932; *Cinara* *longispinosa* Tissot 1932; *Cinara* *melaina* Boudreaux 1948; *Cinara* *pergandei* (Wilson) 1919; *Lachniella* *taedae* Tissot 1932; *Cinara* *watsoni* Tissot 1939; *Cinara*

Pinus greggii Engelm.

ponderosae (Williams) 1910; *Lachnus*

Pinus jeffreyi Grev. & Balf.

arizonica (Wilson) 1919; *Lachniella* *onatei* Hottes & Essig 1953; *Cinara* *ponderosae* (Williams) 1910; *Lachnus* *schwarzii* (Wilson) 1919; *Lachniella*

Pinus lambertiana Dougl.

hirticula Hottes 1958; *Cinara* *moketa* Hottes 1957; *Cinara* *saccharinipini* Hottes 1958; *Cinara*

Pinus leiophylla Schiede & Deppe

terminalis (Gillette & Palmer) 1924; *Lachnus*

Pinus lumholzii Robinson & Fernald

californica Hottes & Essig 1953; *Cinara*

Pinus michoacana Martínez

ponderosae (Williams) 1910; *Lachnus* *terminalis* (Gillette & Palmer) 1924; *Lachnus*

Pinus monophylla Torr. & Frem.

atra (Gillette & Palmer) 1924; *Lachnus* *curtiwahtolca* Hottes 1955; *Cinara* *edulis* (Wilson) 1919; *Lachniella* *tanneri* (Knowlton) 1930; *Lachnus* *wahtolca* Hottes 1953; *Cinara*

Pinus monticola Dougl. ex D. Don

chamberlini Knowlton 1935; *Cinara* *ferrisi* (Swain) 1918; *Lachnus* *hirsuta* Hottes & Essig 1954; *Cinara* *kucea* Hottes 1958; *Cinara*

Pinus mugo Turra

pergandei (Wilson) 1919; *Lachniella*

Pinus nigra Arnold

californica Hottes & Essig 1953; *Cinara* *montanensis* (Wilson) 1919; *Lachniella* *pinca* (Mordvilko) 1895; *Lachnus* *pini* (Linnaeus) 1758; *Aphis* *ponderosae* (Williams) 1910; *Lachnus*

Pinus occidentalis Sw.

arizonica (Wilson) 1919; *Lachniella* *californica* Hottes & Essig 1953; *Cinara* *ponderosae* (Williams) 1910; *Lachnus*

- Pinus oocarpa* Schiede
azteca Hottes & Essig 1954; *Cinara californica* Hottes & Essig 1953; *Cinara*
- Pinus palustris* Mill.
carolina Tissot 1932; *Cinara melaina* Boudreaux 1948; *Cinara osborni* Tissot 1944; *Cinara*
- Pinus patula* Schlechtend. & Cham.
californica Hottes & Essig 1953; *Cinara terminalis* (Gillette & Palmer) 1924; *Lachnus*
- Pinus ponderosa* Dougl. ex Laws.
americana Hottes & Essig 1953; *Cinara arizonica* (Wilson) 1919; *Lachniella glabra* (Gillette & Palmer) 1924; *Lachnus kinei* Hottes & Essig 1953; *Cinara lassenensis* Hottes & Essig 1953; *Cinara nigrita* Hottes & Essig 1953; *Cinara oregonensis* (Wilson) 1915; *Lachnus ponderosae* (Williams) 1910; *Lachnus pseudoschwarzii* Palmer 1936; *Cinara schwarzii* (Wilson) 1919; *Lachniella serrai* Hottes & Essig 1953; *Cinara solitaria* (Gillette & Palmer) 1924; *Lachnus thatcheri* Knowlton & Smith 1938; *Cinara*
- Pinus ponderosa* var. *scopulorum* Engelm.
glabra (Gillette & Palmer) 1924; *Lachnus ponderosae* (Williams) 1910; *Lachnus schwarzii* (Wilson) 1919; *Lachniella solitaria* (Gillette & Palmer) 1924; *Lachnus*
- Pinus pseudostrobus* Lindl.
terminalis (Gillette & Palmer) 1924; *Lachnus*
- Pinus pungens* Lamb.
atlantica (Wilson) 1919; *Lachniella pinivora* (Wilson) 1919; *Lachniella taedae* Tissot 1932; *Cinara watsoni* Tissot 1939; *Cinara*
- Pinus quadrifolia* Parl. ex Sudw.
ponderosae (Williams) 1910; *Lachnus*
- Pinus resinosa* Ait.
atlantica (Wilson) 1919; *Lachniella carolina* Tissot 1932; *Cinara*
- harmonia* Hottes 1958; *Cinara pinea* (Mordvilko) 1895; *Lachnus pinivora* (Wilson) 1919; *Lachniella strobi* (Fitch) 1851; *Eriosoma watsoni* Tissot 1939; *Cinara*
- Pinus rigida* Mill.
atlantica (Wilson) 1919; *Lachniella carolina* Tissot 1932; *Cinara longispinosa* Tissot 1932; *Cinara pergandei* (Wilson) 1919; *Lachniella pinea* (Mordvilko) 1895; *Lachnus pinivora* (Wilson) 1919; *Lachniella rigidae* Hottes 1958; *Cinara taedae* Tissot 1932; *Cinara watsoni* Tissot 1939; *Cinara*
- Pinus roxburghii* Sarg.
californica Hottes & Essig 1953; *Cinara*
- Pinus sabiniana* Dougl.
arizonica (Wilson) 1919; *Lachniella sabinianus* (Swain) 1919; *Lachnus*
- Pinus serotina* Michx.
atlantica (Wilson) 1919; *Lachniella cronartii* Tissot & Pepper 1967; *Cinara taedae* Tissot 1932; *Cinara watsoni* Tissot 1939; *Cinara*
- Pinus* sp.
brevipilosa Voegtlin, Remaudière, Peña 1986; *Cinara*
enigma Hottes & Knowlton 1954; *Cinara nigra* (Wilson) 1919; *Lachniella vagabunda* Hottes & Essig 1953; *Cinara*
- Pinus strobus* L.
atlantica (Wilson) 1919; *Lachniella pinea* (Mordvilko) 1895; *Lachnus strobi* (Fitch) 1851; *Eriosoma*
- Pinus sylvestris* L.
atlantica (Wilson) 1919; *Lachniella pinea* (Mordvilko) 1895; *Lachnus pini* (Linnaeus) 1758; *Aphis pinivora* (Wilson) 1919; *Lachniella watsoni* Tissot 1939; *Cinara*
- Pinus tabulaeformis* Carr.
californica Hottes & Essig 1953; *Cinara*

Pinus taeda L.

atlantica (Wilson) 1919; *Lachniella carolina* Tissot 1932; *Cinara cronartii* Tissot & Pepper 1967; *Cinara gracilis* (Wilson) 1919; *Lachniella longispinosa* Tissot 1932; *Cinara melaina* Boudreaux 1948; *Cinara newelli* Tissot 1939; *Cinara osborni* Tissot 1944; *Cinara pergandei* (Wilson) 1919; *Lachniella pinea* (Mordvilko) 1895; *Lachnus pini* (Linnaeus) 1758; *Aphis pinivora* (Wilson) 1919; *Lachniella taedae* Tissot 1932; *Cinara watsoni* Tissot 1939; *Cinara westi* Tissot & Pepper 1967; *Cinara*

Pinus virginiana Mill.

atlantica (Wilson) 1919; *Lachniella carolina* Tissot 1932; *Cinara gracilis* (Wilson) 1919; *Lachniella inoptis* (Wilson) 1919; *Lachniella longispinosa* Tissot 1932; *Cinara lunata* Hottes 1961; *Cinara pergandei* (Wilson) 1919; *Lachniella pinea* (Mordvilko) 1895; *Lachnus pinivora* (Wilson) 1919; *Lachniella schwarzii* (Wilson) 1919; *Lachniella taedae* Tissot 1932; *Cinara tunicula* Hottes 1958; *Cinara watsoni* Tissot 1939; *Cinara*

Pinus wallichiana A.B. Jack

arizonica (Wilson) 1919; *Lachniella*

Pseudotsuga menziesii (Mirb.) Franco

commatula Hottes & Essig 1954; *Cinara dubia* Hottes & Essig 1954; *Cinara osborni* Knowlton 1942; *Cinara pseudotaxifoliae* Palmer 1952; *Cinara pseudotsugae* (Wilson) 1912; *Lachnus splendens* (Gillette & Palmer) 1924; *Lachnus taxifoliae* (Swain) 1918; *Lachnus vagabunda* Hottes & Essig 1953; *Cinara*

Pseudotsuga menziesii var. *glauca* (Beissn.)

Franco

pseudotaxifoliae Palmer 1952; *Cinara pseudotsugae* (Wilson) 1912; *Lachnus*

Tsuga heterophylla (Raf.) Sarg.

pilicornis (Hartig) 1841; *Aphis tsugae* Bradley 1960; *Cinara*

Tsuga mertensiana (Bong.) Carr.

wahsugae Hottes 1960; *Cinara*

Family **Taxodiaceae***Cryptomeria japonica* D. Don

maui Bradley 1965; *Cupressobium pilicornis* (Hartig) 1841; *Aphis*

Manuscripts of high quality dealing with any aspect of natural history will be considered for publication in one of the Illinois Natural History Survey series: *Bulletin*, *Biological Notes*, *Circular*, and *Special Publication*. Authors who are not employees of the Survey are required to pay printing costs. Manuscripts should follow the recommendations of the third edition of the *Council of Biology Editors Style Manual* except that journal names in the literature cited are to be spelled in full. The Survey expects to publish only one or two manuscripts by non-Survey authors yearly.

Send three copies of manuscripts to be considered for publication to Office of the Chief, Illinois Natural History Survey, Natural Resources Building, 607 East Peabody Drive, Champaign, Illinois 61820. Before a manuscript is accepted for publication in the *Bulletin* or in *Biological Notes*, two or more outside referees must recommend it.



UNIVERSITY OF ILLINOIS-URBANA
595.752V856C C003
CATALOG OF THE CINARA SPECIES OF NORTH A



3 0112 010053517